

Cigar Box Bulletin

VOLUME 23 ISSUE 2

FEBRUARY 2019

Weather Data Processor for the Federal Aviation Administration's Next Generation Air Traffic Control System (NextGen)

Speakers: Dr. Marilyn Wolfson and Joseph Venuti, Lincoln Laboratory

Reporter: Jim Metcalf



Lincoln Lab is developing the weather processor for NextGen in collaboration with Raytheon. Marilyn began by describing their prior experience working with Raytheon in developing the aviation weather systems that preceded NextGen--the Terminal Doppler Radar and the Integrated Terminal Weather System. Lincoln Lab develops the algorithms for data processing, product creation, and display, and Raytheon builds the operational systems. Marilyn then introduced Joe, who gave most of the presentation.



Marilyn Wolfson

The key goals of the FAA are safety and

efficiency. The FAA also aims for modernization and cost reduction. Air traffic control facilities currently have a variety of weather and hazard information displayed on many separate screens. NextGen aims to provide integrated displays and also expand their geographical domain into the Caribbean and East and West of the continental United States. The current Traffic Flow Management System is aging. Despite periodic technical refreshes, it is difficult to get new technologies into the system as rapidly as controllers would like. The concept of NextGen is to use a "plug and play" configuration to enable easy addition of new products. Over 80 safety products are to be generated; the primary system will be in Atlanta, with a

Continued on Page 2

INSIDE THIS ISSUE:

Let's Get Acquainted-- Joe Bausk	6
February Anniversaries	7
February Birthdays	8
Keep it simple	9
RMA Org Chart 2019	10

February Meeting Minutes Ship's Bell Rang at 10:00 AM

Reporter: Bill Beebee

Chris Hammer called the meeting to order, asked for the silencing of cell phones and led the members in the Pledge of Allegiance. This was followed by the singing of the Star Spangled Banner, accompanied by **Ken Watson** at the piano.

Chris asked **Nick Veeder** to announce a new member and three visitors:

Jeff Levine is a new member, but he was not present.

Sandy Grace introduced his visitor, **Bob** by Berkowitz. Bobby grew up in NYC

Continued on Page 3

UPCOMING MEETINGS

Friday, March 8

Friday, April 12

Friday, May 10

Speaker — Continued

backup system in Salt Lake City. Subsidiary products will be generated at many other airports across the country. The products can be displayed not only on computer screens in control centers but also on laptops and smart phones.

The core of Joe's presentation was devoted to the technologies that Lincoln Lab is developing for NextGen. The new precipitation mosaic, based on radar data, will include a variety of improvements over current depictions. These include more rapid update of volume scans (from the current 8-9 minutes to as little as 25 sec), image analysis to create smoother motion on screen, and user-customized layer displays to enable controllers to see only the weather imagery relevant to their particular altitude domains. Other display options include echo tops, growth trends, and lightning.

NextGen will also display wind hazards related to microbursts, which are high-velocity downdrafts associated with rain shafts in thunderstorms. The integrated display will show the location of microbursts and gust fronts in relation to runways to enable approach controllers to divert aircraft when necessary. NextGen will also enable air traffic managers and controllers to view hazard depictions at multiple airports to enable larger scale planning of traffic flow.

As an example of the application of NextGen products, Joe showed a case in which a Delta Airlines flight from Boston to Salt Lake City flew through a hail shaft at 33,000 ft, east of the Front Range in Colorado. The hail cracked the windshield and severely dented the nose of the aircraft, which made an emergency landing at Denver. The NextGen display of growth trends revealed that, as the aircraft was approaching what appeared initially to be two separate cells and aiming to fly between them, the cells were rapidly growing and merging. The time resolution of currently available radar products is insufficient to reveal these details.

One of the NextGen products is the weather avoidance field, which will translate weather information into explicit depiction of hazardous areas. This product is based on analysis of thousands of flights in the vicinity of storms. NextGen will also generate an 8-hour forecast, including a depiction of forecast uncertainty, to facilitate advance planning of traffic flows.

Initial deployment is to begin later this year and is expected to be completed within the next 4-5 years. Additional products are already in development.

Marilyn and Joe provided additional information in response to questions. Although controllers will have much more information with NextGen, pilots have final authority over their choice of route. Pilot training will be a high priority with NextGen. There is interest in getting high-resolution weather information to aircrews, but that is the responsibility of the airlines. Artificial intelligence will have an increasing role in weather prediction and hazard identification but will not wholly replace human decision-making any time soon. Feedback between air crews and controllers will improve, e.g., improved handling of pilot weather reports (pireps). Another group at Lincoln Lab is working specifically on ways to increase capacity in the air traffic system, including the use of satellite weather data to enable more flexibility in separating aircraft over the oceans.

(Editorial Comment: A friend of a friend was on an airliner, taking off from New Orleans in the early '60s. The plane hit an invisible updraft over Lake Ponchartrain and the pilot pushed the nose down to compensate. Then, the plane hit an invisible downdraft and unavoidably dived into the Lake, killing all onboard. NextGen will detect and display such strong air currents so that they can be avoided.)

Minutes — Continued

but attended UMass - Amherst. He loved MA so much that he returned, establishing a career as a s/w company executive. He finished his career with consulting in s/w management.

Don Sherman introduced his first visitor, Zaire Ali, whom he met in a Sudbury Senior Center discussion group. Zaire has been a Sudbury resident for 30 years and has had a Defense career, working for Raytheon and Lockheed-Martin.

Don's second visitor was Leon Goodman. Leon grew up in the NYC area and spent his career in leadership with the New York Port Authority. Though moving here after retirement, Leon is still interested in transportation issues.

Chris then asked **Paul Murphy** to call for traveler reports:

Don Sherman stayed at a timeshare on Singer Island, near Florida's West Palm Beach area. The Island is close to President Trump's Mar-a-Lago estate. The overall area has lots of air traffic that is managed by several abutting air traffic Terminal Control Areas. All is well unless the President's plane comes in. When the President is in the air, those Control Areas scramble among themselves for controlling his flight. **Don** described the situation in a humorous way.

Chris thanked the following members for their contributions to the meeting:

Coffee – Jim Carlton

Continued on Page 4

The Cigar Box Bulletin

P. O. Box 261
Wayland, MA 01778
Board of Directors

Chris Hammer	President
Larry Vifquain	1st Vice President
TBD	2nd Vice-President
Merrill Mack	Treasurer
Chris Hammer	Program Chairman
Bob Diefenbacher	Editor of Bulletin

Board Members

Ray Atkins*	Bill Beebee
Bob Diefenbacher	Bill Ely*
Chris Hammer	Merrill Mack
Al Persson*	Ron Riggert
Michael Sheff	Richard G. Smith
Paul Sturgis	Nick Veeder
Larry Vifquain	

*Past RMA Presidents

Emeritus Members

Morton Brond
Wayne Clemens*
Barry David
Karl Geiger
John Kiladis,
Frank Lyons*
Waldo Hart

Thank You To Our Proof Readers

*Yutaka Kobayashi,
Stan Wulf*

*Published monthly by the Retired
Men's Association of Weston,
Wayland, Sudbury and
surrounding communities.*

Minutes—Continued

Pastries from Stop ‘n Shop – Rick Dugan
 Badges – Phil Lenentine
 Facilities – Mike Sheff, Jim Latimer, Fred Jungalwala
 Reporting on the Minutes - Bill Beebee
 Reporting on the Speaker - Jim Metcalf
 Bulletin – Bob Diefenbacher, Koby Kobayashi, Stan Wulf, John McKinney
 Sound Equipment – Ron Riggert
 Slide Show – Don Sherman, Richard B. Smith
 Website – Ken Mattes, Bill Thompson, Bob Diefenbacher, Al Persson
 Photographer - Art Phipps

Announcements:

Merrill Mack gave the RMA financial overview. We had 169 members in 2018; 173 members in 2017; and 189 members in 2016. We were \$658 in the black as of the 11/30/18 end of the last Fiscal Year, and that means the \$48 amount for dues can remain unchanged. Our major expenses last year were the Yearly Banquet subsidy; Charitable Gift to Parmenter; First Baptist Church Contribution; hardcopy monthly *Bulletin* mailings; and software for the RMA Website.

Chris alerted us that there will be NO JULY MEETING. The Church is running a camp that month, and the days remaining for us are too close to the July 4 Holiday.

Ron Riggert said that he is looking for backup persons to help him to set up the sound system for our Meetings.

Chris said that there is a fun opportunity for writers to join **Bill Beebee's Speaker Reporters** group. There are currently six Reporters, with each writing on Speaker topics related to his career: **Bill Beebee, Jim Bright, Al Cefalo, Doc Harrell, Jim Metcalf, and Harold Wilkinson**. The Reporters are always looking for more members and anyone interested in joining can contact any Reporter for help.

Al Persson, who chairs the Member Support Help Line, asked for anyone who either needs help or knows someone who needs help to please contact him.

Al also said that **Howard Kendall**, who chairs the RMA Discussion Group, says that the next monthly meeting of the Group will be at Conrad's at 120 Boston Post Road, in Sudbury and east of Lansdown St. It will be at noon this Wednesday, February 13th. The discussion topic will be The Second Amendment rights to keep and bear arms.

Bob Hyotte invited all to join him for a reasonably-priced "Irish Dinner" on Saturday, March 16th. It will be held at Our Lady of Fatima Knights of Columbus hall at 160 Concord Rd. in Sudbury. Bob can be reached at (978) 460-0794.

Event:

Doc Harrell alerted us to the last Pawsox Game on June 7 in RI. (The Pawsox are moving to Worcester under a new name.). Each of the first 3000 Game attendees will receive a free souvenir. Doc checked the number of RMA hands up to see how many wanted to attend. He will provide more information at the March Meeting.

Minutes—Continued

Vital Statistics:

Jim Latimer listed the birthday and anniversary dates for February. The oldest birthday belongs to **Bill Burt**, still a young guy at 93 on the 13th. The oldest anniversary goes to **Bill and Bess Ladoulis**, newlyweds for 65 years on the 28th.

Health of Members:

Joe Bausk gave the sad new that former member Ed Ross passed away. His wife, Nancy, is doing as well as can be expected.

Humor:

Nick Veeder told a funny story relating to our Speaker topic - weather forecasting. An American Indian tribe in Western MA elected a new chief who happened to be an electronics wizard. Preparing for each ritual campfire meeting as Winter progressed, the chief checked the local weather faithfully on his smart phone. Over time, he saw the forecasts predicting colder and colder weather. For each more-dire forecast, he told the braves to load up on more and more firewood for the campfire. What the chief did not

know was that the weather folks had, early on, given up on understanding local weather. They thought that the Indians had good weather sense, and the forecasters simply called for colder weather each time the Indian firewood pile got higher. (Engineers call this "positive feedback instability".)

Musical Vignette:

Ken Watson and **Bill Ladoulis** played music appropriate to the approaching Valentine's Day. They gave a moving performance of "My Funny Valentine" and followed with the ever-popular "Make Someone Happy".

ROMEO Lunch:

Ray Atkins announced the Lunch to be at the Lotus Blossom, at 394 Boston Post Road in Sudbury.



Let's Get Acquainted—Joe Bausk



Joe Bausk married his wife Jacqui 62 ago. They have lived in Sudbury for 58 years, the place where Jacqui was born.

Joe grew up in Levittown, NY, a suburb on Long Island. High School was in nearby Hicksville, but college brought him to Worcester State in Mass. The Navy then grabbed

him for four years where he served as a fire control expert on a destroyer ESCORT and a LST. All his working career was in telephone communications, first with NY Tel, later with NE TEL, which became NYNEX, which became Verizon.

He and Jacqui raised five children, all but one of which live in the area. This produced seven grandchildren and four great grandchildren and all of them live in this area. This still left them time to travel to China twice plus Spain, Italy, Australia, New Zealand and others. Very special were five cruises on the Holland

America line which were all devoted to jazz music. In 2009 they went to Buenos Aires and around the treacherous and stormy Cape Horn to Chile. His pictures of this trip are wonderful.

Joe is the ONLY RMAer who is both a Justice of the Peace and a Notary Public. He has officiated at up to 50 weddings a year for a total of over 1060 so far. There are APPROXIMATELY 1500 Justice's of the Peace in Mass.

His hobby is Revolutionary War Reenactment where he serves with the high rank of Colonel in the Sudbury Militia. He was also a bass drummer with the Sudbury Fyfe and Drum Corps. Plus he loves to watch football.

He is very busy doing volunteer work in Sudbury. Some of the work is, food pantry meals on wheels, FISH (driving people to Doctor's appointments), Travel Trips for Sudbury Senior Center, twice a year Men's Breakfast at Sudbury Senior Center, Treasurer for the Friends of Sudbury Senior Citizens, Goodnow library, and Sudbury Historical Society.

Note that there will be NO RMA meeting in July 2019 due to a church camp using all the facilities at that time.

Help Needed:

- **Ron Riggert wants backup help for the sound system used at meetings—training included!**
- **Bill Beebee needs reporters for speakers so the reporter's interests can be aligned with the speaker's expertise to make it easier to write the report.**

Anniversaries in February

Member	Spouse	Anniv.	Yrs.
Edwin M. Bikofsky	Carol	02/06/1955	64
Alvin Glazerman	Phyllis	02/21/1960	59
William T. Ladoulis	Bess	02/28/1954	65
Sam Merrra	Judy	02/01/1958	61
Frederick Pryor	Barbara	02/20/1965	54
Bert Sellier	Linda	02/17/1979	40

Average Years Married—57



Birthdays in February

Member	Birthday	Age
Joseph D. Bausk	02/27/1932	87
Richard Bell	02/16/1933	86
William Burt	02/13/1926	93
Michael R. Daniel	02/26/1937	82
Robert Fitzgerald	02/09/1934	85
Christopher P. Jones	02/03/1928	91
Norman E. Sears	02/17/1927	92
Henry P. Sorett	02/08/1947	72
Richard Testa	02/12/1943	76

Average Age—85



Keep it simple

At the start of the 1920s, the commercial radio was beginning to be in general use, marking the birth of real-time mass communication. Now thousands of people listened to the same news reports and entertainment programs at the same time. Newspapers and gossip had competition.

People were no longer isolated but were aware of what was going on in the rest of the world on a daily basis.

America was booming while Europe was recovering from WWI. The economy of Germany was particularly devastated and various political movements were competing for power and promising to solve the resulting problems.

One of these movements was the Nazi party of which Adolf Hitler would soon become the leader.

Dr. Joseph Goebbels joined the movement when it first began.

Goebbels started keeping a diary when he was a teenager. This diary is one of the best sources about the rise and inner workings of the Nazi party from its beginning until the surrender of the Third Reich in 1945.

Continued on Page 11



Astonish me.

© From *The New Yorker*

*RMA Organization Chart January 2019***Speakers Program Committee****Chris Hammer, Chair**

Bill Beebee, John Blair, Jim Bright, Jim Carlton, Frank Lyons, Dave Manjarrez, Jim Metcalf, Paul Motyka, Mike Patterson, Al Persson, Harold Wilkinson

Cigar Box Bulletin**Bob Diefenbacher, Editor/Chair**

Yutaka Kobayashi, John McKinney, Stan Wulf - (proof readers)

Special Events**Doc Harrell II, Chair**

Joe Bausk, Howard Kendall, Dick Testa

Reporters Committee**Bill Beebee, Chair****Vice Chair, TBD****Minutes** - Bill Tafuri, Dan Miller**Speaker** - Jim Bright; Al Cefalo; Doc Harrell; Jim Metcalf; Harold Wilkinson**History Committee****Al Persson, Chair**

Merrill Mack

Mailing Committee**Joe Kerr, Chair**

Dean Horman, Paul Sturgis

Sound Manager**Ron Riggert, Chair****Need Backup****Webmaster****Ken Mattes, Richard B. Smith Co-Chairs**

Bob Diefenbacher, Bill Thompson

Membership Committee**Nick Veeder, Chair**

Paul Murphy, Paul Sturgis

Data Base Mgr.**Ron Riggert, Chair****Nick Veeder, Vice Chair****Photographer:**

Art Phipps

Facilities**Mike Sheff, Chair**

Fred Jungalwala, Dick Kilbourne, Jim Latimer

Badges**Richard G. Smith, Chair**

Bill Cooper, Harold Edelstein, Phil Lenentine, Merrill Mack, John Niggel

Coffee**Paul Sturgis, Chair****Vice Chair, TBD**

Dave Calder, Jim Carlton, Sandy Grace, Bob Hyotte

Refreshments**Ted Grenham, Rick Dugan Co-Chairs**

John Iberg, Paul Kudirka

Projector**Don Sherman, Chair**

Richard B. Smith

Vital Statistics**Gerry Brody, Chair**

Jim Latimer, Harold Wilkinson

Let's Get Acquainted**Jack Whiting, Chair****Health of our Members:****Bill Ely, Chair**

Joe Bausk

Humor:**Harold Wilkinson, Chair****ROMEO Lunches:****Frank Lyons, Bob Malnati – Co-Chair**

Harold Willkinson

Volunteerism:**Howard Kendall, Chair****Need Backup****Member Internal Support**

Al Persson

President:**Chris Hammer****First VP:****Larry Vifquain****Second VP:**

TBD

Board of Directors/Other Officers**Board of Directors**

*Ray Atkins, Bill Beebee, Bob Diefenbacher, *Bill Ely, Chris Hammer, Merrill Mack, Bob Malnati, *Al Persson, Ron Riggert, Mike Sheff, Richard G. Smith, Paul Sturgis, Nick Veeder, Larry Vifquain

Emeritus Board Members

Mort Brond, *Wayne Clemens, Barry David, Karl Geiger, John Kiladis, *Frank Lyons

*Past Presidents****Treasurer: Merrill Mack****Asst. Treasurer: Ron Riggert****Auditor: Mike Sheff****Annual Dinner:****TBD**

Keep it simple (Continued from Page 9)

Goebbels was the son of a minor government bureaucrat who raised him as a devout Roman Catholic. He was a failure prior to joining the Nazi movement. He saw the movement in Messianic terms with Hitler as a savior who would save and restore the German-speaking people to their rightful glory.

Hitler appointed Goebbels to supervise Nazi propaganda; Goebbels set about studying commercial advertising that was just beginning to be a force in society. (Customers needed to be found for the things produced by the industrial revolution.)

Advertising companies studied how to use the radio coupled with posters and newspaper advertisements for the most effective means of reaching their customers.

Goebbels learned from them that simple repetitive use of short verbal slogans on the radio coupled with the same message on posters and newspaper ads were the most effective.

Long complicated advertisements did not work very well.

This was true in spite of the fact that the message in his case was often immoral and filled with lies. The message they projected was how they were going to improve the sad state of the German-speaking people, and that was what they wanted to hear.

He used short catchy slogans and symbols, now known as logos. People related to this and believed in them. Each listener would attach their own desires and wishes to a given logo or phrase.

Goebbels saw no need to stick to the truth if a lie gave a better message about the Nazi movement. It was the end that counted, not the means to that end. He also felt that big lies were believed more readily than small ones.

The colors used on the posters were red, black and white. When a rally was to be given, Goebbels started out by placing posters everywhere with only one, two or three words. He would change the posters frequently but continued to use the same few words repeatedly.

When the Nazi party came to political power he arranged for every German family to have a radio. His department controlled everything that was broadcast.

He stated once that he could not have “sold” the message of the Nazi movement without the radio.

He wrote in his diary that one day he was sitting in a stadium, listening to Hitler give one of his many long speeches, when he looked up in the sky. There was the swastika as a cloud formation.

Goebbels felt the appearance of the swastika in the sky was a Messianic revelation. He used the three colors of the Nazi movement and created the familiar symbol or logo of the Nazi movement.

The swastika has been around for at least 5,000 years and has been used by many cultures to symbolize many different things. The use of the swastika by the Nazi party is arguably the most successful use it has ever enjoyed.

In 1945, when the Russian Army was just a few miles from Berlin, Goebbels and his wife poisoned their two children and then committed suicide.

He wrote in his diary on the last day of his life, “The world that will follow the defeat of the Third Reich will be so terrible it is better for us all to die.”

By Al Persson



R.M.A.
Box 261
Wayland, MA 01778

First Class Mail

Next Meeting
Friday, March 8, 2019
Web site RMenA.org
E-mail info@RmenA.org



RMA Meeting: Friday, March 8, 10:00 am

CLIMATE

Dr. Kerry Emanuel, Professor of Atmospheric Science, MIT



Dr. Kerry Emanuel is the Cecil and Ida Green professor of atmospheric science at the Massachusetts Institute of Technology, where he has been on the faculty since 1981, after spending three years on the faculty of UCLA. Professor Emanuel's research interests focus on tropical meteorology and climate, with a specialty in hurricane physics. His interests also include cumulus convection, and advanced methods of sampling the atmosphere in aid of numerical weather prediction.

He is the author or co-author of over 200 peer-reviewed scientific papers, and three books, including *Divine Wind: The History and Science of Hurricanes*, published by Oxford University Press and aimed at a general audience, and *What We Know about Climate Change*, published by the MIT Press. He is a co-director of MIT's Lorenz Center, a climate think tank devoted to basic, curiosity-driven climate research.

Bring a Guest to this Meeting!