

#### MONDAY, MARCH 21

7:30 am REGISTRATION

12:00 pm WELCOME: Steve Hansen, NATCA Safety Committee Chair

12:15 pm

KEYNOTE ADDRESS: Paul Rinaldi, NATCA President

#### 12:45 pm

PANEL: The Pros and Cons of the Aviation Innovation Reform & Reauthorization Act (AIRR)

2:15 pm BREAK

3:00 pm PANEL: *NextGen and SESAR* 

4:00 pm PRESENTATION: *Dr. Jerry Cockrell* 

5:15 pm MEET & GREET: CFS Sponsors & Exhibitors

For full agenda, see page 16



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MONDAY, MARCH 21, 2016

## WELCOME: Communicating for Safety 2016

Welcome and thank you for joining us for Communicating For Safety 2016! The first CFS provided a forum for aviation professionals from across the nation to discuss their daily challenges. Now, almost 20 years later, aviation professionals and industry stakeholders from across the world are here to improve aviation safety, discuss and explore technology, and build relationships amongst the global community.

CFS has grown from a modest 40 attendees in 1999, to approximately 1,500 attendees. We are so grateful for your attendance. Without a broad and inclusive conference, we could not accomplish our goal of taking aviation safety to new heights, tackling the challenges this industry faces, and celebrating its achievements. Over the next three days, we hope you will learn from the many expert panelists, exhibitors, and each other. We're excited to welcome back some familiar faces to the stage this year, including Mr. Gordon Graham, for yet another insightful and entertaining presentation, and Capt. Al Haynes, an airline pilot who encountered a harrowing situation and saved hundreds of lives. We also welcome new guests, including Dr. Jerry Cockrell, a psychologist, pilot, and safety expert, and Mr. David Kerley, the ABC News correspondent covering transportation.

As aviation safety professionals, we must be ready each day to overcome whatever challenge arises. On Wednesday evening, at the Archie League Medal of Safety Awards, we will conclude this conference by celebrating some of the most astounding examples of NATCA professionals rising to the occasion to triumph over unexpected challenges. It is in our nature as air traffic controllers



to solve problems as they are presented to us while staying calm under pressure. The individuals we will honor on Wednesday are the best examples of this in the air traffic control profession.

As technologies change and our National Airspace System becomes more complex, the aviation community will face pressures and challenges it has never seen before. We are confident that by working together we can overcome these challenges and create a safer, more efficient system. From advocating for funding certainty, to getting the next FAA Reauthorization bill passed, to integrating Unmanned Aircraft Systems, to implementing NextGen technologies, to learning to work with remote towers, to continuing to foster a culture of collaboration, to learning from our brothers and sisters overseas, this year will bring many challenges. Nonetheless, the conversations we engage in here will foster our collective strength, and help us overcome these challenges together.

### SPOTLIGHT: Dr. Jerry Cockrell

Dr. Jerry Cockrell, Ph.D., is an aviator, psychologist and humorist. Cockrell, a former Boeing 737 captain, has over 20,000 flying hours, including flying a Boeing 747-400 on international routes for an air carrier. Cockrell also holds a Ph.D. in Psychology and Education. He began working in 1977 and was one of the earliest developers of Crew Resource Management (CRM) programs. Since that time he has conducted more than 200 CRM and Check Airmen safety seminars for many air carriers — including United Parcel Service, Alaska Airlines, Air B.C., Air Ontario, Frontier Airlines, Overseas National Airlines, Mark Air, Reeves Aleutian Airways and Henson Airlines.







Current teamwork programs developed from airline CRM training. Dr. Cockrell has been on the forefront of these efforts, leading the way with his unique CRM, human factor, and teamwork programs that have inspired others to follow his path. Cockrell has worked with corporate, governmental, and aviation groups including Mobil Oil, ARCO, all branches of the military, the U.S. Coast Guard, and the Federal Bureau of Investigation.

As Mark Air's director of safety and training, Cockrell has worked with its employees, including mechanics, pilots, and flight attendants. His Maintenance Management Safety seminars lead the way before government NPRM (Notice of Proposed Rule Making) for CRM, and he is a respected aviation human factors authority. Cockrell was one of the first speakers to make aviation safety presentations in all 50 states and abroad — speaking in England, Germany, Nigeria, Saudi Arabia, Zimbabwe, Mexico, Canada, and Australia. He's delivered over 3,000 humorous safety presentations. The NATCA CFS Planning Committee hopes conference attendees this year will not only learn from Dr. Cockrell, but also enjoy his presentation and sense of humor.



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## MONDAY: PANEL PREVIEWS

#### → 12:45 pm

The Pros and Cons of the Aviation Innovation Reform & Reauthorization Act (AIRR)

MODERATOR:

Trish Gilbert Executive Vice President, NATCA The legislative process for passing a new Federal Aviation Administration (FAA) Reauthorization bill is potentially both lengthy and complex. But the near-universal call across the aviation community to end funding uncertainty, which threatens the growth and modernization of the National Airspace System (NAS), remains clear.

Today, a special panel will examine the issue in detail and cover the initial steps that both the House and Senate have made to address FAA Reauthorization. NATCA Executive Vice President Trish Gilbert will moderate the panel, which will include Randy Babbitt, Senior Vice President, Labor Relations, Southwest Airlines; Capt. Tim Canoll, President of the Air Line Pilots Association, Int'l; Dr. Dorothy Robyn, Former Special Assistant to the President, 1993-2001; David Grizzle, CEO of Dazzle Partners, LLC and former FAA Air Traffic Organization Chief Operating Officer; and Ed Wytkind, President of the Transportation Trades Department, AFL-CIO.

April 1 will mark the beginning of the second extension of the 2012 FAA authorization, giving lawmakers more time to continue their efforts to pass a new bill. The last FAA Reauthorization bill had 23 extensions, which contributed to the funding uncertainty plaguing the NAS and our workforce. Each potential lapse in extension created another chance for a partial FAA shutdown and NATCA member furloughs.

NATCA will consider reform proposals that protect our members, create a stable funding stream, and do not create a for-profit system.

#### → 3:00 pm

NextGen and SESAR

MODERATOR: Mary McMillan

Vice President of Safety and Operational Services, Inmarsat NextGen initiatives to modernize the NAS with new, safe, and effective equipment and procedures are not uniquely American. SESAR (Single European Sky ATM Research) is a similar initiative between Eurocontrol and the European Union to ensure the modernization of the European air traffic management system. The two programs seek to apply all available data and research to developing new technologies to modernize the NAS and European airspace while maintaining the highest standard of safety.

Today, a panel of distinguished experts will give their organizations' perspectives on NextGen and SESAR technologies. The panelists will discuss how to deploy these two large infrastructure programs in harmony to ensure the safety of all who use the NAS and European airspace. Inmarsat Vice President of Safety and Operational Services Mary McMillan will moderate the discussion among NATCA NextGen Representative Kevin McLaughlin, IFATCA Executive Vice President, Professional Eric Risdon, NATS Operations Director of Strategy Simon Hocquard, and NextGen International Representative, FAA Donald Ward.

Panel discussion topics will include the framework for harmonizing NextGen and SESAR and what it means to ATM; a progress update on key initiatives and coordination with International Civil Aviation Organization (ICAO) panels; how NextGen is expanding with other global partners, including Japan and Singapore; how NATS UK, as a SESAR partner, is developing future global ATM through the use of System Wide Information Management (SWIM); how the recent introduction of Extend Arrival Management (XMAN) has impacted operational service at Heathrow and is now being considered for other European airports; how NATS UK is extending the concepts of SWIM to its internal information management; and what global harmonization means to the aviation community.

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## FOUNDATIONS OF PROFESSIONALISM

What do **RESPECT** in the workplace and maintaining the safety of the National Airspace System have in common?

YOU!

This week, the collaborative NATCA-FAA efforts to raise awareness of the Foundations of Professionalism in our workplaces begin a new discussion: how to create an environment of mutual dignity, support, and respect among all individuals.

We believe that through awareness, education, and meaningful conversations, we can build a supportive workplace culture.

As safety professionals, we make critical choices every day and this is no different. By choosing RESPECT for your colleagues, you create a culture of collaboration. And safety and professionalism are a direct result of those actions.

We invite you to visit our Foundations of Professionalism booth (407/409) in the exhibition hall to learn more about RESPECT as well as the other programs below in the Foundations of Professionalism, which last year was awarded the U.S. Department of Transportation's prestigious Secretary's Award for Transportation Safety:

+ A key component of proactive safety management is the Air Traffic Safety Action Program (ATSAP), a non-punitive, voluntary safety-reporting program that is now the largest of its kind in the world. By gathering data directly from controllers and managers, it is credited with hundreds of safety improvements at air traffic control facilities throughout the United States.

+ Linking safety culture to professional responsibility, Professional Standards has successfully provided an alternative to traditional methods of addressing performance and conduct issues. It fosters an environment that provides training and tools to resolve issues on a peer-to-peer basis. Professional Standards stresses that controllers exhibit professionalism not by simply following the rules, but by continually striving to do more.

+ Turn Off Tune In has been strongly embraced by the workforce, significantly changing the culture in the operating work environment. Using scientific data and workforce testimonials, the campaign increases awareness and education about the impact of distractions on safety, with a focus on electronic distractions. A distraction-free workplace means controllers and supervisors are in a far better position to make potentially life-saving decisions.

+ Fully Charged addresses a long-standing safety risk for shift workers – fatigue. Backed by science and data, this initiative provides education to the workforce that directly applies to their daily lives. Through the campaign, the workforce is learning more about personal sleep needs, sleep disorders, how to recognize and deal with fatigue, and the dangers associated with working while fatigued.

The Foundations of Professionalism address the all-important aspect of the human component of aviation safety. These programs have helped instill core values of professionalism and personal responsibility to ensure the highest level of safety every day.

## FOUNDATIONS OF PROFESSIONALISM











Fully Charged is a joint campaign among the FAA, NATCA and PASS. • Respect is a joint campaign among the FAA, NATCA, PASS and AFSCME.



## IFATCA: 2016 ANNUAL CONFERENCE

Last week, NATCA proudly welcomed nearly 500 registered attendees to Bally's for the 55th Annual Conference of the International Federation of Air Traffic Controllers' Associations (IFATCA).

It was the first time that the Annual Conference was held in the United States.

"In the 55-year history of IFATCA, we were overdue as the largest air navigation service provider in the world in holding this conference here," said NATCA Executive Vice President Trish Gilbert. "We are proud to host the world's professional organization for air traffic controllers here in the United States."

There were 74 countries represented at the conference, which was packed with information, discussion, and education. There was also ample time to renew existing relationships and meet new friends.

IFATCA President and CEO Patrik Peters, in his remarks during the opening ceremony on March 14, invited everyone to both share and ask for information. "I invite you to do this, amongst each other and from our offices, representatives, and specialists, and, of course, the (IFATCA) Executive Board members," he said. "As facilitators of this Federation, we do our best to move this further."

Peters used the analogy of a tree in explaining the important goal of IFATCA's work during the conference.

"We all want to see the fruits of our work," Peters said. "And if the fruits are our results, the tree's branches are our capabilities. These capabilities are formed based on a solid trunk, our intent. And our integrity would be the roots of the tree.



"Fatigue risk management, distractions in the workplace, voluntary incident reporting, and just culture; all these matters are based on character, and competence. We have a responsibility as safety

professionals to be trustworthy. We have to ensure this tree is strong, and grows well. We have a responsibility to maintain integrity, have the right intentions, work within our capabilities to harvest the results we want."

NATCA President Paul Rinaldi welcomed attendees to the United States and Las Vegas during the opening ceremony. He told them that even though the large size of the United States aviation system makes it unique, "we face the same problems you face around the world. We push for modern equipment and procedures, we strive for the highest standard of professionalism, and we promote and safeguard the National Airspace System while protecting the national air traffic control profession. Modernization and innovation are rapidly making our individual countries' aviation systems into one gigantic, dynamic, global aviation system."

Photos by retired NATCA member George Petrovich.





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## ARCHIELEAGUE MEDAL OF SAFETY AWARDS



For the last 12 years, the Archie League Medal of Safety Awards banquet has paid homage to heroic flight assists that exemplify the dedication, professionalism, and commitment of our members. This year is no different. We are featuring winners in each issue of the Daily Dispatch so you can better understand the events that led them to win the award, which will be presented on Wednesday evening at the awards banquet.

Today we have the honor of introducing Alaskan Region winners Ronald Sparks (ZAN) and Mike Thomas (ZAN), Central Region winners Brett Rolofson (ZKC) and Liam Keeney (ZKC), and Eastern Region winner Jeffrey Schuler (N90).

### Alaskan Region

On Nov. 30, 2015, Ronald Sparks and Mike Thomas were on position at Anchorage Center (ZAN) when aircraft N256V flew into their sector on its way to Nome, Alaska (OME). The pilot was attempting to land at Nome but a low cloud ceiling and limited visibility began to affect the pilot's ability to fly the aircraft. After his first failed attempt to land, Sparks and Thomas got him on track for a second attempt. After this second attempt also failed, the pilot requested information on nearby airports with less challenging flight conditions.



RONALD SPARKS ZAN



MIKE THOMAS ZAN

Because of his lack of familiarity with the area, the pilot became nervous about the change in direction and wanted to return to Nome, but Sparks and Thomas knew that the aircraft would not make it back with the fuel he had on board and the current weather conditions. They encouraged him to continue on to Unalakleet (UNK) to prevent him from getting stranded and running out of options in dangerous weather as the conditions at OME continued to worsen.

When the pilot approached UNK, he realized he did not have the appropriate plates for the airport and could not land there. He also relayed that he had only 15 minutes of fuel remaining and three souls on board. Sparks and Thomas provided additional information the pilot needed to land, including updated weather conditions, approach options, and locator information. After over an hour of constant communications, the pilot landed successfully with just six minutes of fuel remaining.

### entral region

Brett Rolofson was training Liam Keeney on June 15, 2015, when N345TM, a single engine Mooney receiving flight following from Kansas City Center (ZKC), came onto their radar. The pilot was en route to Lee's Summit, Mo. (LXT), when his aircraft experienced an oil pressure failure.

Rolofson took over Keeney's position while Keeney moved over to the D side and began relaying information about nearby airports to Rolofson who, in turn, relayed the information to the pilot. Rolofson suggested the pilot head back towards Liberal, Kan. (LBL), where Keeney and Rolofson saw better weather reports. Shortly thereafter, the pilot relayed to Rolofson that his aircraft could not make the journey back to LBL because it was too far away. Rolofson and Keeney recommended Beaver, Okla., (KK44) as a closer alternative.



BRETT ROLOFSON ZKC



LIAM KEENEY ZKC

As he was relaying information to KK44, Rolofson lost radar and radio contact with the pilot. The aircraft had disappeared from his radar due to its altitude. Rolofson decided to contact another aircraft on his frequency in an attempt to reestablish contact with the pilot. Rolofson relayed clearances and information to-and-from N345TM through the pilot of American Eagle flight ENVOY3315, who was able to reach the pilot in distress over his radio. The pilot of ENVOY3315 had the pilot of N345TM switch over to an emergency frequency, and for several minutes confirmed that N345TM had all of the information he needed to land safely. The distressed pilot was able to report through the pilot of ENVOY3315 that he had landed safely at KK44.



On Dec. 22, 2015, an apparently disoriented pilot was operating Instrument Flight Rules (IFR) in aircraft N9525M. The aircraft descended as low as 700 feet, quickly climbed back up to 1,800 feet, then descended again to 800 feet, just nine miles from Islip/MacArthur Airport. Two radio towers stood at 643 and 821 feet nearby as the pilot struggled to maintain altitude. Weather was approximately 700 feet and overcast with visibility below one and a half miles. After an N90 controller offered several nearby airports as alternatives, the pilot still appeared to be disoriented and was unable to correct headings or maintain altitude. Veteran controller and licensed pilot Jeffrey Schuler then began handling the flight.



After Schuler advised the pilot of his landing options, the pilot declared that he'd lost an engine. Schuler convinced the pilot to fly to Sikorsky Memorial Airport (BDR), which he had been circling at 5,000 feet. The BDR instrument landing system (ILS) for Runway six was out of service and the BDR visual over runway (VOR) navigational aid for Runway 29 had recently been decommissioned. Runway 24 was closed due to construction. The only approach aligned for Runway 29 required the use of a GPS. Schuler did not believe the pilot's GPS equipment (a dying iPad) was reliable, so he gave vectors to the pilot for the VOR approach to Runway 29.

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JEFFREY SCHULER

Schuler was able to focus the pilot and direct his descent into BDR. The pilot broke out at approximately 600 feet above ground level, as they were losing radar contact with him, and landed safely.



Thank you to everyone who submitted nominations in 2015. The nomination period for 2016 has already begun! Archie League Awards Coordinator Sarah Zilonis is working on a new submission form for nominations of events occurring in calendar year 2016. That form will soon be available at natca.org. In the meantime, please contact Sarah at szilonis@natcadc.org with your nomination.



## SPOTLIGHT: ART OF THE AIRPORT TOWER

NATCA is proud to bring the Art of the Airport Tower exhibition and its creator to Communicating For Safety 2016!

Art of the Airport Tower is a stunning photography exhibition and book by Smithsonian photographer and museum specialist Carolyn Russo, dedicated exclusively to air traffic control towers in the United States and around the world. The exhibition is housed at the Smithsonian National Air & Space Museum in Washington, D.C. It will remain on display there until December 2016, after which it will become a traveling exhibition featured at Smithsonian affiliates throughout the United States until January 2019.

NATCA worked closely with the National Air & Space Museum to bring CFS conference attendees not only a special version of the exhibition, but also Russo herself! This week, in the CFS exhibition hall, there are 20 images from the collection, as well as the introduction, foreword (written by NATCA President Paul Rinaldi and Executive Vice President Trish Gilbert), and preface from the exhibition's companion book, which features 100 photographs of 85 historic and contemporary towers in 23 countries.

Russo's striking photographs bring heighted awareness to the simple beauty of the towers, the technological changes over time, and a call for their preservation. Often, the first impression travelers have when they reach a new destination is the tower, and each tower tells a unique and important story about its airport, community, and culture. The 50 towers featured in the National Air & Space Museum exhibition, and the 85 featured in the book, show how these structures play a pivotal role in the vast network of air traffic control technology that brings people of the world closer together.

NATCA is proud to support this exhibition, which highlights some of the facilities in which NATCA's members perform the profession that is near and dear to their hearts. The U.S. towers depicted in the exhibition are: Edwards Air Force Base, Calif., Fort Worth Alliance, Texas, John F. Kennedy, N.Y., Los Angeles, Calif., Newark Liberty, N.J., Phoenix Sky Harbor, Ariz., Washington National, Va., Orlando, Fla., Cincinnati Municipal Airport-Sunken Field, Ohio, Floyd Bennett Field, N.Y., Ford Island, Pearl Harbor, Hawaii, Kingman, Ariz., LaGuardia, N.Y., Old Port Columbus, Ohio, Washington Dulles, Va., Wichita Municipal-Kansas Aviation Museum, Kan., and Oshkosh Wittman, Wis.

#### Please stop by booth 206 to meet Russo and have her sign a copy of the companion book, which is available for purchase.

Edinburgh Airport (EDI) Scotland, United Kingdom



John F. Kennedy Int'l Airport (JFK) New York, United States



Fort Worth Alliance Airport (AFW) Texas, United States





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Over the course of the last several years, NATCA has worked collaboratively with the FAA and industry to enhance the safety and efficiency of the NAS through safety initiatives and NextGen technologies. This special section of the Daily Dispatch takes a closer look at some of these dynamic technologies and how they are changing the NAS for the better.

## ADS-B

#### AUTOMATIC DEPENDENT SURVEILLANCE-BROADCAST

As of today, there are over 20,000 aircraft in the NAS equipped with rule (Radio Technical Commission for Aeronautics DO-260B and DO-282B) compliant ADS-B avionics. The rule essentially states that by Jan. 1, 2020, aircraft operating in radar transponder airspace must be equipped with ADS-B Out avionics that meet minimum operating standards.

All en route facilities (En Route Automation Modernization and Microprocessor-En Route Automated Tracking System) and all major terminal facilities (Standard Terminal Automation Replacement System [STARS] and Common Automated Radar Terminal System) have reached their ADS-B initial operating capability (IOC), allowing them to use surveillance from ADS-B Out-equipped aircraft. Terminal Automated Radar Terminal System 2E sites will reach their ADS-B IOC after an upgrade to STARS Enhanced Local Integrated Tower Equipment. In all terminal sites, Fusion is also being deployed to facilitate the use of ADS-B.

In the oceanic environment, where ground based radio stations are well out of range, the FAA and other Air Navigation Service Providers continue to pursue spacebased ADS-B. A network of satellites capable of receiving ADS-B reports is expected to be in place by the end of 2017. The implications for search and rescue are tremendous, as well as potentially reducing oceanic separation standards.

In addition to ADS-B Out, which delivers reports from the equipped aircraft to the ground-based network of radio stations, applications that leverage ADS-B In continue to be developed.



## DATA COMM

#### DATA COMMUNICATIONS

The DataComm program has successfully deployed the departure clearance service at nine sites, giving air traffic controllers the ability to transmit flight plans and other essential messages with the touch of a button instead of via verbal communications. These include New Orleans Moisant (MSY), San Antonio (SAT), Salt Lake City (SLC), Houston Intercontinental (IAH), Houston Hobby (HOU), Austin (AUS), John F. Kennedy (JFK), Newark (EWR), and Louisville Standiford (SDF).

Boise (BOI) and Greater Cincinnati (CVG) are now running the new Version 12 software with enhanced Pre-Departure Clearance. Approximately 1,500 clearances have been up-linked via Controller Pilot Data Link Communications (CPDLC) to properly equipped aircraft. The next wave of towers will include Los Angeles (LAX), Burbank (BUR), Ontario (ONT), Santa Ana (SNA), Las Vegas (LAS), San Diego/Lindbergh (SAN), Indianapolis (IND), Memphis (MEM), Nashville Metropolitan (BNA), La Guardia (LGA), Teterboro (TEB), White Plains Westchester (HPN), and Philadelphia (PHL). These towers should be completed by the beginning of May. All Tower Data Link Services (TDLS) sites should be completed by the end of the year.

## OAPM

#### OPTIMIZATION OF AIRSPACE AND PROCEDURES IN THE METROPLEX

The Optimization of Airspace and Procedures in the Metroplex (OAPM), is the FAA's effort to expedite Performance Based Navigation (PBN) in select, large metropolitan areas. Metroplex uses collaborative teams to maximize safety and efficiency with Area Navigation (RNAV), Standard Instrument Departures (SID), Standard Terminal Arrivals (STARS), and specifically Optimized Profile Descents (OPDs).

Each Metroplex project includes a study team that determines what improvements should be made, and a design and implementation (D&I) team that implements the improvements. Implementation is complete in Houston, North Texas, and Northern California. D&I activities are ongoing at seven sites: Washington, D.C., Charlotte, Atlanta, Southern California, Florida, Cleveland/Detroit, Phoenix and Denver.

Las Vegas has completed the study team phase and is awaiting D&I kick-off.



#### EN ROUTE AUTOMATION WORKGROUP

The En Route Automation Workgroup was established to identify opportunities for better alignment, collaboration, decision-making, and transparency across programs, projects, and stakeholders. The scope and capability of the workgroup affords the ability to make decisions with consideration to various stakeholder perspectives and needs.

The workgroup will engage the various programs that require changes in En Route Automation Modernization (ERAM), and intentionally coordinate further in advance of the changes so they can benefit from the workgroup and its resources. ERAM is a crucial aspect of NextGen that allows the NAS to operate at the

highest level as future NextGen technologies like PBN, Data Comm, and Automatic ADS-B are implemented.

The workgroup's priority is to improve the strategic planning and coordination among these various programs. The workgroup has had initial meetings with PBN, Data Comm, and Technical and Operational Requirements Group (AJV-7) NATCA Representatives and their FAA counterparts.



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#### **TERMINAL FLIGHT DATA MANAGER**

NATCA is excited to move forward on the Terminal Flight Data Manager (TFDM) program, a key NextGen initiative that brings modernization to air traffic control tower equipment and processes.

One component of TFDM replaces paper flight strips with Advanced Electronic Flight Strips (AEFS). Electronic flight strips have been a NATCA priority for many years. This initiative would be a big step forward and take, "the tower out of the stone age," according to Matt Baugh, NATCA's TFDM Article 48 Representative.

An AEFS prototype is currently in testing at several facilities throughout the country. What NATCA originally saw as something designed to gather requirements has now taken on a life of its own.

TFDM will also integrate with both the Traffic Flow Management System (TFMS) and the Time Based Flow Management (TBFM) programs to increase the efficiency of the NAS.



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PBN

#### WAKE TURBULENCE RECATEGORIZATION

Seven facilities have successfully deployed Wake RECAT Phase 1.5. This allows controllers to safely apply new separation standards between certain aircraft. RECAT teams are now looking to move forward with Phase 2 this year, beginning in Anchorage.

Phase 2 is a site-specific program that will focus on the fleet mix of the facilities involved, instead of using a general matrix. Phase 2 will also provide additional benefits to the facilities, as it is catered to the local traffic. RECAT implementation is currently scheduled for seven additional facilities over the next 12 months. The Wake RECAT team is also working on Phase 2.5, to include a further expansion of use for departures on closely spaced parallel runways.

#### **PERFORMANCE BASED NAVIGATION**

Performance Based Navigation (PBN) is an advanced term for Area Navigation (RNAV).

PBN provides precise tracks that lead to safer and more efficient operations in the NAS by allowing more aircraft to use less airspace than was previously required. They navigate at a higher level of fidelity, allowing departures, arrivals, and en route traffic to seamlessly interact throughout the NAS. PBN encompasses much more than just navigation. It allows airspace, route changes, and usages that weren't previously possible.

#### TERMINAL AUTOMATION MODERNIZATION & REPLACEMENT STANDARD TERMINAL AUTOMATION REPLACEMENT SYSTEM

**TAMR Phase 3 Segment 1:** Originally, there were 11 Automated Radar Terminal System (ARTS) IIIE facilities on the modernization list, but now only two remain. Denver TRACON, Louisville ATCT, Northern California TRACON, Southern California TRACON, Atlanta TRACON, Minneapolis TRACON, St. Louis TRACON, and Potomac Consolidated TRACON have all transitioned to STARS. The remaining two sites, Chicago TRACON and New York TRACON, will transition to STARS by May 2016. This was a monumental undertaking that many thought was impossible, but because of collaboration and NATCA's total immersion in the program, it's happening.

TAMR Phase 3 Segment 2: Of the original 94 ARTS IIE implementation sites, 79 re-main. TAMR teams have an extremely aggressive schedule over the next two years to continue transitioning these sites. This is the most aggressive deployment schedule of automation the FAA has ever undertaken. The biggest obstacle to the TAMR team is the aging infrastructure of Airport Surveillance Radars, like ASR-8s, that need to be digitized. This is known as the Common Terminal Digitizer (CTD) program.

**TAMR Phase 1:** Legacy STARS facilities and Technical Refresh upgrades the software of existing STARS facilities to either STARS G4 or STARS G4 Elite. Implementation is complete at six of 47 facilities.

#### TIME BASED FLOW MANAGEMENT

NASA and the FAA initially developed Time Based Flow Management (TBFM) in the early 1990s. The program was developed to address airports experiencing regular demand and capacity imbalances.

TBFM's capabilities have expanded, including tools like Terminal Sequencing and Spacing (TSAS) scheduled to start deploying in late 2018. This will extend the center metering to the terminal area for sequencing and spacing. TSAS initially is scheduled to be implemented at nine airports. Current guidelines for en route controllers require flights to deliver their meter fixes within +/- 60 seconds of the flight's scheduled arrival time. TSAS requires improved delivery accuracy (+/- 30 seconds) to produce the desired flight efficiency gains. This will be a two-way communication operation between TBFM and TSAS, with each impacting the other.

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## TAMR/STARS





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#### NAS VOICE SYSTEM

NAS Voice System (NVS) is the voice switch replacement for legacy terminal and en route systems in use today, and the key voice communication component for NextGen. NVS is currently in testing and development, and the FAA is scheduled to begin testing the First Article system at Harris' factory in Melbourne, Fla. later this year. The First Article system will be a 255-position system, proving the system's capability as a total voice switch replacement in the NAS.

Operational Test and Evaluation (OT&E) will follow the First Article test at the William J. Hughes Technical Center in Atlantic City. At OT&E, groups of controllers will be evaluating the interface and functionality of the system to determine its suitability for deployment. First deployment will be to the three NVS Key Sites: Seattle Tower, Seattle TRACON, and Seattle Center in mid 2018.

#### **UNMANNED AIRCRAFT SYSTEMS**

Unmanned Aircraft Systems (UAS) activity has risen dramatically over the past three years. The lack of a defined process for operators of UAS has the potential to create a safety concern. That's where NATCA comes in: actively working with other stakeholders on this issue to ensure safe integration of UAS into the NAS.

Since controllers already work UAS traffic every day, NATCA is able to provide the air traffic controller perspective on UAS operations. One notable challenge facing air traffic controllers is the inability of UAS operators to see and avoid other aircraft.

NATCA also participates in the Know Before You Fly campaign, which provides consumers and prospective business operators of unmanned aircraft systems the knowledge and tools they need on how to fly safely and responsibly before taking to the skies.

The International Civil Aviation Organization has international workgroups addressing UAS operations. NATCA, through its Safety and Technology Department, has represented the International Federation of Air Traffic Controllers' Associations on this workgroup. NATCA will continue its work to ensure the air traffic controller voice remains a part of discussions about UAS operations.





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	Late Implementation	
	of Space-Based ADS-B	

**INDUSTRY THEATER** 

**EXHIBIT HALL** 

#### **TUESDAY, MARCH 22**

NATCA ASI

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10:40 - 11:25 ar	n	
SAIC Theater	Raytheon Theater	Airspace Theater

- NATCA Benefits Comm. NATCA Charitable Foundation
- NATCA CISM Team
- NATCA OSHA Comm.
- NATCA Reloaded
- NATS
- NAVCANatm
- NBP Corp/Safegate
- New York ARTCC
- NHCFAE
  - Northrop Grumman
- NTSB
- Partnership for Safety
- Penn State World Campus
- Potomac TRACON
- Professional Women **Controllers Association**
- Raytheon
- Rigil Corp.
- Russ Bassett Corp.
- Saab Sensis
- SAIC
- San Diego Convention 2016
- SIG
- SkyOne Federal Credit Union
- Systems Atlanta, Inc.
- Thales
- UFA, Inc.
- UND SATCA
- **Unmanned Aircraft Pilots**
- 211 Washington ARTCC



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#### MONDAY AGENDA

7:30 am - 5:00 pm | REGISTRATION

Noon - 12:15 pm | WELCOME Steve Hansen, NATCA Safety Committee Chair

#### 12:15 pm - 12:45 pm | KEYNOTE ADDRESS Paul Rinaldi, NATCA President

#### 12:45 pm - 2:15 pm | PANEL

### The Pros and Cons of the Aviation Innovation Reform and Reauthorization Act (AIRR)

Trish Gilbert, Executive Vice President, NATCA (moderator) Randy Babbitt, Sr. VP Labor Relations, Southwest Airlines Tim Canoll, President, ALPA David Grizzle, CEO, Dazzle Partners LLC Dr. Dorothy Robyn, Former Special Assistant to the President, 1993-2001 Ed Wytkind, President, Transportation Trades Dept.

#### 2:15 pm - 3:00 pm | BREAK

#### 3:00 pm - 4:00 pm | PANEL

#### NextGen and SESAR

Mary McMillan, Vice President Aviation Safety and Operational Services, Inmarsat (moderator) Simon Hocquard, Operations Director, NATS, UK Kevin McLaughlin, NextGen Rep., NATCA Eric Risdon, Executive Vice President, Professional, IFATCA Donald Ward, NextGen International, FAA

#### 4:00 pm - 5:15 pm | PRESENTATION Dr. Jerry Cockrell

#### 5:15 pm - 7:00 pm | MEET & GREET CFS Sponsors and Exhibitors



GREEN SHIRTS AND ANSWER TODAY'S QUESTION TO ENTER OUR DAILY GIVEAWAY!

## WHAT IS CISM?

WE'LL AWARD ONE FITBIT AND ONE OTHER PRIZE TODAY. AFTER Answering the question from our team member, receive an entry card from them and take it to the cism booth in the exhibition area to enter.



### TUESDAY AGENDA

7:30 am - 8:30 am | BREAKFAST

7:30 am - 3:00 pm | REGISTRATION

8:30 am - 8:35 am | WELCOME Steve Hansen, NATCA Safety Committee Chair

8:35 am - 9:35 am | PANEL Remote Tower Systems

Jeff Woods, PMO Rep., NATCA (moderator) Jennifer Post, Director, Air Traffic Services, ATO (moderator) Kieron Heflin, Remote Tower Rep., NATCA Daryl Hickey, President, Civil Air, Australia Keith McCrea, Executive Director, Virginia SATSLab, Inc. Patrik Peters, President and CEO, IFATCA

### 9:35 am - 10:40 am | PANEL Pilot/Controller Communications

Andy Marosvari, Procedures Rep., NATCA (moderator) Dave Callen, Las Vegas Metro Police Dept. John Drexler, Director for ATC Procedures, ALPA Paul Flynn, NetJets Association of Shared Aircraft Pilots John Peschio, Southwest Airlines Jennie Sandland, Anchorage Center, NATCA

10:40 am - 11:25 am | BREAK

#### 11:25 am - 12:30 pm | PANEL

Challeges of Integrating UAS into the NAS Steve Weidner, UAS Rep., NATCA (moderator)

Marke "Hoot" Gibson, Sr. Advisor on UAS Integration, FAA Parimal Kopardekar, Manager, State Autonomous System Operations, NASA Keziah Ogutu, Executive Vice President, Africa and Middle East, IFATCA Steve Pennington, Exec. Director, DOD Policy Board on FAA

Travis Mason, Chief of Staff, Project Wing

12:30 pm - 1:45 pm | AWARDS LUNCHEON

#### 1:45 pm - 2:45 pm | PANEL Aviation Weather

Opening Comments by Teri Bristol, FAA Air Traffic Organization Chief Operating Officer Steve Hansen, Safety Comm. Chair, NATCA (moderator) Terry Biggio, VP Safety & Technical Training, ATO (moderator) Matt Cabak, Safety Focal, SUPCOM, ATO Bruce Landsberg, Sr. Safety Advisor, AOPA Mike Schilz, Accident Investigation Board Member, ALPA Matt Tucker, Weather Rep., NATCA

2:45 pm - 3:30 pm | BREAK

#### 3:30 pm - 5:30 pm | KEYNOTE ADDRESS Gordan Graham

The Five Concurrent Themes for Success

5:30 pm - 6:30 pm | MEET & GREET CFS Sponsors and Exhibitors



You know you're going to play...

why not play for charity!

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### WEDNESDAY AGENDA

7:30 am - 8:30 am | BREAKFAST

7:30 am - 11:00 am | REGISTRATION

8:30 am - 8:35 am | WELCOME Steve Hansen, NATCA Safety Committee Chair

8:35 am - 9:00 am | KEYNDTE ADDRESS Michael Whitaker, Deputy Administrator, FAA

#### 9:00 am - 10:00 am | PRESENTATION

How the Media Can Shape Aviation David Kerley, Correspondent, ABC News Sarah McCann, Senior Communications & Public Affairs Associate, NATCA

10:00 am - 11:00 am | PANEL

Improving Safety Through Collaboration Opening Comments by Teri Bristol, FAA Air Traffic Organization Chief Operating Officer Steve Wallace, Collaboration Facilitator, NATCA (moderator) Vern Huffman, Collaboration Facilitator, ATO (moderator) Jim Apone, MYR Facility Rep., NATCA Jay Barrett, Human Performance Rep., NATCA Nick Daniels, ZFW Facility Rep., NATCA Jason Demagalski, Human Performance Manager, ATO Tommy Graham, ZFW Manager, ATO Bob Hildebidle, MIA Manager, ATO Bill Kisseadoo, MIA Facility Rep., NATCA Ricky Washington, MYR Manager, ATO

11:00 am - 11:45 am | BREAK

#### 11:45 am - 12:45 pm | PANEL International Air Navigation Service Provider (ANSP) Fireside Chat

Peter Duffey, President & CEO, CATCA Daryl Hickey, President, Civil Air, Australia Paul Rinaldi, President, NATCA Paul Winstanley, Chair, ATCOS Branch, UK

12:45 pm - 2:30 pm | LUNCH Speaker: Capt. Al Haynes

2:45 pm - 3:45 pm | WORKSHOPS\*

3:45 pm - 4:15 pm | BREAK

4:15 pm - 5:15 pm | WORKSHOPS\*

#### \*WORKSHOPS

- Human Factors in ATC
- Partnership for Safety Workshop
- Helicopter Emergency Handling
- ADS-B
- Safety Reporting
- Aircraft Accident Investigation and Litigation
- Collaboration
- Air Traffic Training
- Unmanned Aircraft Systems

## DAILY DISPATCH

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#### ARCHIE LEAGUE MEDAL OF SAFETY AWARDS

6:30 pm - 7:30 pm | RECEPTION

#### 7:30 pm | BANQUET Keynote Address: Michael Huerta, FAA Administrator

12TH ANNUAL ARCHIE LEAGUE MEDAL OF SAFETY AWARDS MARCH 23, 2016 RECEPTION • 6:30 PM

BANQUET · 7:30 PM

TICKET REQUIRED