As we have now jumped into the new year with both feet, CDM has hit the ground running. In January, we kicked off our new Executive Committee and NAS Collaboration Forum structure to better align our FAA/Industry engagement and to ensure we are being as productive as possible with our meetings. While still a work in progress, we believe we now have the correct focus on where information is being shared, where the subject matter experts are collaborating on ATFM related tasks and how we are working through operational issues to enhance the NAS for everyone. We believe we will be working virtually for a while yet, but we are getting better at conducting our Teams meetings and engaging in robust discussion to address the issues of the day. A lot of work has gone into the last year in trying to create an environment as efficient as possible for the flight operators as the volume of flights has been reduced. As traffic volume starts to increase, we need to ensure we keep efficiency at the forefront and not fall into old routines and comfort levels. We have gained efficiencies in the system and we need to keep moving forward to ensure those efficiencies continue. One example of keeping the focus on efficiency is our new NCF. As simple as a name change, the transition from National Customer Forum (NCF) to NAS Collaboration Forum (NCF) is significant. We are not addressing flight operators as customers, but stakeholders and partners in how we collaboratively manage the NAS. The FAA has a specific and necessary role in managing the NAS but only with our partners providing input and collectively developing strategies for the day to day operation, can we be truly successful. The new NCF brings together not only System Operations but all the FAA lines of business to include everyone who can contribute to the conversation and suggest solutions to the issues as they are identified and help to implement necessary changes. We also recently approved the addition of an Ad-hoc Sub-team to address contingency events specifically associated with NOTAM information and distribution methods. The Ad-hoc team was created to quickly address a very specific task and make recommendations to the Executive Committee. While our standing sub-teams address tasks within their areas of expertise, having the ability to pull together subject matter experts to address issues or concerns that don’t necessarily fit one of our other teams will provide a tremendous advantage with how we seek solutions. One final thought: I want to thank Bob Flynn for partnering with me as co-lead for our CDM sub-teams. With the new Executive Committee, Bob is now the Industry Co-Chair for the EC with FAA Co-Chair Dan Murphy. I am happy to welcome Rob Goldman as the new Industry CDM co-lead and I look forward to continuing the great leadership we have experienced in the past. Congratulations to Bob and welcome to Rob in this new role. Thanks everyone and keep up the great work for CDM!

-Greg

The CDM news is published quarterly and edited by Jadyne Seitz; Staff Support Specialist and beat writer.

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Questions or comments? Email the CDM office at 9-ajr-cdm@faa.gov
From The Editor:

As we close our celebration of Women’s History Month, I have gathered interviews and insightful contributions from our female subteam members and I sure hope you enjoy reading their words. In 1987, Congress declared the month of March as the month we celebrate the contributions made by women. It truly is on display here in the CDM aviation community! I hope you enjoy these articles and if anything in here sparks joy, please contact a subteam co-lead and get involved!

Here in the CDM office, we are looking forward to all that is to come with the lifting of restrictions, the return to in-person collaboration and networking, and the testing of our new recipe for FAA/Industry engagement. In April, we will still be finalizing the new CDM website. It’s taken a long time, but I am excited that we have finally moved to the testing and training phase! We would like to thank all the people who have helped in this effort. Soon, the new website will become the way for subteam co-leads to share vision, stories and team recommendations. It will be a much better way to show off the work that we accomplish and also to communicate and assist each other when we need ideas.

We have made it through a year of COVID-19 and I truly hope this is the last COVID edition of the CDM news. It has been a very long winter – welcome spring!

Coming Soon!

May 2021 NCF will include a briefing from the Decision Support Services—3Ts

New Start Time for NCF! 9am ET beginning in April
Subteam Updates

CTT (CDM Training Team):

Tony Price (FAA) & Darin Tietjen (Industry) co-leads.

Spring greetings from your CTT. We hope this finds everyone doing well. Two areas highlighted for this addition are the 50113 course and the TFM Learning website. As a reminder, please submit any new subteam training for the 2021 Spring Training package ASAP.

Before COVID, the 50113, National Traffic Management Course, was held in-person and delivered via instructor-led training (ILT). Not wanting to let this highly sought-after course be inactive, the ATCSCC revised the content for virtual delivery. Although some components of the ILT were removed to shorten the course to two days, the virtual delivery option has allowed the ATCSCC to reach a larger audience. There were approximately 53 students in January, 55 in February, and 90 in March. The two remaining courses are scheduled for April 6-7 and May 4-5. Once the May class is complete, lessons learned will be evaluated to determine if future course changes are needed.

Special thanks go out to Brenda Woods and Mel Sydnor, who modified the 50113 ILT course content and schedule for virtual delivery. They do an excellent job facilitating the course and teaching Terminal and Severe Weather.

The TFM Learning website’s transition to the cloud is still in progress. The hope is to report completion in the next update.

Below is a list of website changes since September 2020:

TFM Home
- Upcoming Events HTML subpage added for Upcoming Events registration link
  Link previously reloaded homepage

TFM Training Tab
- CUSTOMER TRAINING
  Diversion Recovery
  Diverted Flight List
  NTML Training 5.03
  Program Compliance Training Briefing
  NE AFP Strategy of Use Plan
  Time-Based Launch Procedures & Dynamic Launch and Reentry Windows
  NE AFP Briefing – DCC Training
  WET 2021 TCF Training
- WEATHER
  Deicing
  Winter Storm Operations
- MISC
  ATO 2021 Efficiency Performance Initiatives

(Continued on page 4)
Subteam Updates

CDM Training Team (cont.)

What’s New
- Monthly Update announcements
- Courses Added
  - Introduction to RedHat 7 Desktop Environment Refresh
  - RedHat 7 Hardware Familiarization

Course Offerings
- 50113 virtual course file updates
  - FY21 Class Schedule
  - FY21 Course Agenda

JATOC Tab
- FAA65000973 JATOC Course added

Outdated Training Removed
- Open Skies Aircraft
- Collaborative Planning
- SIR

Site Presentation
- Wraparound text
  - It eliminates having to scroll sideways for paragraph text in certain browsers
- Flash (shockwave player) courses identified with red asterisk
  - Reflects courses being updated for Flash removal

Flash Training Converted Thus Far
- NY Departure Plan for SWAP
- TBFM for Aviation
- JATOC
- RedHat 7

Upcoming Additions/Changes
- Efficiency Focus 5 Tab and homepage button.

The CDM Training Team looks forward to supporting your CDM training efforts! If you have any questions or recommendations please write us.

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Tony.Price@faa.gov
Subteam Updates

SCT (Surface CDM Team):

Jadyne Seitz (FAA) & Robert Goldman (Industry) co-leads.

The SCT would like to recognize Rob for his years of dedication to S-CDM. Rob will be leaving this team to move up to an industry leadership role, replacing Bob Flynn. The industry members of the SCT have selected Paul Amen as the new co-lead. The happenings in TFDM are highlighted in this update: Task 75 and 82 “TFDM/Industry Engagement throughout TFDM Development and Deployment” and “Collaborative Site Implementation Teams (CSIT) Engagement”.

In early March, the team held a virtual meeting to re-engage our efforts as a combined group with TFDM. These tasks have been waiting patiently in the wings for most of the last year. We were able to hear from the Collaborative Site Implementation Team and the TFDM Program Office to ensure all of our industry team members and our airport operation members are hearing the same information. This important part of collaboration, to be able to ask questions and hear others ask questions and receive answers, is an integral part of CDM and ultimately can lead to the best solutions. The team has decided that bi-monthly meetings will continue from now on as we lead up to the Build 1 key-site implementation in late 2021. (The TFDM Program Office expects a more accurate timeline update later this summer.)

Doug Swol, Terminal Flight Data Manager (TFDM) AJM-224 Deputy Program Manager, gave us a very thorough look at happenings and reported that Build 1 Key Site is still slated for Phoenix, AZ. Build 1 must be in an operational status for approximately one year before the IOC date for Build 2, so this means that Build 2 will be turned on in Charlotte, NC around late 2022 or early 2023. It was highlighted that some of the other airports scheduled for surface metering in Build 2 may be swapped, or changed in order, based on recent developments. The COVID-19 pandemic has greatly affected this waterfall. If you remember, Build 1 IOC was supposed to be June 2020. As of the writing of this newsletter, there has been no access granted to FAA facilities for TFDM installation, testing and training. There has been limited access to the William J. Hughes Technical Center in New Jersey. (Mr. Swol advised they have been able to develop a remote testing capability for software testing.) There has been no access to the FAA Training Academy in Oklahoma City so they cannot train technicians either. Many previously planned activities, like operational testing, require a significant number of air traffic controllers and system engineers working in-person in close contact. Combining all of these restrictions, we also have the problem that TFDM will be competing with other programs for access to the above facilities. TFDM has dependencies on other programs as well. Despite all of that, the software testing and development of a TFDM testbed is encouraging and shows that there has been significant progress made. Mr. Swol gave us a very high-level update on the testbed in which they have been working with one industry partner, American Airlines.

Paul Amen, AAL, stated the only airport that currently has a testbed is CLT. Mr. Swol said this development was completed in December 2020. The first phase had “canned scenario data”, the second phase has SWIM Cloud Distribution Service which provides near real-time data for testing. Other airports could be built into the testbed, but not all will need to be. He sees the testbeds being a really good training for users on how to interact with the system without waiting for third-party tools. (The testbed requires a secure IP VPN connection.) It’s goals are to ensure flight operators, airport operators and 3rd party vendors are able to consume, utilize and publish (TFCS only) to the TFDM Program’s two SWIM services: TFDM Terminal Publication (TTP) and TFDM Flight Operator System (FOS) Collaboration Service (TFCS). The objective is to ensure that participants have tools ready in advance of TFDM’s deployment, so that industry can begin participating in Surface Collaborative Decision Making and receive benefits from TFDM’s deployment as soon as possible after TFDM Build 2 operations begin at any particular airport.

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Subteam Updates

SCT (cont.)

(Continued from page 5)

At the last SCT meeting, Paul Amen (AAL) shared AAL’s ‘test documents’ to define objectives for each test-bed scenario. On Paul’s mind was, “How does Industry and the FAA measure if the test is / was successful”? Keith Henry from CSIT, advised the first Tech Talk for industry went very well and there will be another on March 24. They published the TFDM User Guide and the TFDM Data Operational User Guide on the CDM website and have announced their availability to stakeholders. Mr. Swol said the next steps are to engage and find out what industry testbed objectives are. The SCT is poised to assist.

TFDM capabilities are being implemented incrementally in a phased (multiple build) approach throughout the life of the program. The introduction of TFDM into the NAS is a key building block for the FAA’s Trajectory Based Operations (TBO) concept.

TFDM Build 1 Electronic Flight Strips Display
(Key Site: PHX)
Completed B1.2 Software Development and began remote software testing
B1.3 will be IOC software build in PHX

TFDM Build 2 Surface Management Display
(Key Site: CLT)
Completed B2.0 software development
Informal testing/checkouts of B2.0 will begin in March
B2.1 will be the TFDM IOC build at CLT
Completed development of TFDM testbed
One industry partner already planning to on-ramp
Initiating work to connect TFDM testbed to SWIM Cloud Distribution Service (provide near real time data for TFDM testbed)

Further information? Contact: jadyne.m.seitz@faa.gov, robert.s.goldman@delta.com, or paul.amen@aa.com
FET *(Flow Evaluation Team):*

Chad Wakefield (FAA) & Ernie Stellings (Industry) co-leads.

The Flow Evaluation Team has been meeting to consider implications over our newest tasks. First, task 98 “Route Planning, Assessment and Coordination: Integrated Adaptive Route Capability (IARC)”. FET has a long and productive history of working on NAS routes, route availability for flight planning and improving user access via decision support tools. This task will further the work the FET has engaged in previously that better defines route databases, how they are interrelated and benefits that can be gained by looking at all route options.

As background, the current process for the identification of acceptable routing during periods of NAS constraints, most notably weather-related events, is a highly manual and workload-intensive process requiring cumbersome coordination with multiple FAA and stakeholder entities. Using existing, but unconnected preferred route, playbook, CDR and UAS routing databases on marginally automated platforms exacerbates the problem. The workload is intensified during periods of rapid change, during unexpected, or un-forecasted events.

CGH Technologies Inc., via a NASA Small Business Investigative Research (SBIR) Phase 2 Project, has prototyped a new tool called Integrated Adaptive Route Capability (IARC). The objective of IARC is to provide a one-stop-shop for the management and use of all IFR Preferred Routes, including Playbooks, CDR’s etc. in the NAS. This new application includes all the current capabilities in the Route Management Tool (RMT) and will address the significant gaps that exist today which include: – need for increased CDR editing time, lack of local staging databases, lack of consistent and reliable database query results, import files containing CDRs from ERAM and more. In addition to consolidating the functions of the various separate tools that are used today, it will attempt to minimize and, where possible, eliminate manual processes to provide a transparent, collaborative and real-time environment to enable seamless communications and data management amongst the various stakeholders involved in the process of managing and using IFR routes.

The IARC research and web-based prototype will ensure that IFR pre-validated routes, CDRs, Playbooks and routes identified for UAS use are accessible, managed and coordinated in a uniform fashion on a single web-based platform. In addition to providing all available pre-validated routes between any selected city pair it will initially provide forecast convective weather impact information to user selected routes being considered for filing a flight plan. It will also provide automated forecast weather-impact updates to selected routes if requested by the user. In addition, it will allow airspace users to propose new or changes to current pre-validated routes, for validation and approval, for routes that they frequently use, but are not provided currently in other databases, thus enriching the route selections in the database for all stakeholders. Inclusion of routes and route development in support of UAS operations will also be included. One key function fully automates the internal FAA approval process for each ARTCC and the ATCSCC. Using FAA supplied workflow processes, personnel will use IARC embedded route validation algorithms and logic checks to easily coordinate, collaborate, approve (or disapprove) and finally publish to NFDC or other sites the updated collection of new and/or changed routes.

*(Continued on page 8)*
Subteam Updates (Continued)

(Continued from page 7)

On Friday January 08, FET held a meeting with CGH Technologies Inc. (CGH is utilizing Metron Aviation as a sub-contractor on this project.) This meeting focused on additional enhancements to the IARC tool including size and buffering requirements with IARC’s associated weather polygons. Input from the FET Team will continue to be incorporated into the IARC infrastructure and user interface. Upon CGH submitting their prototype to NASA for further review, CGH has requested to further their interaction with the FET Team within the confines of Task 98. February and March meetings were held prior to CGH’s quarterly submission to NASA on IARC activities, enhancements and updates. The FET anticipates having formal recommendations within the next couple of months as CGH is nearing their deadline for their IARC submission to NASA in August 2021.

The other task we were given by the CSG last year is Task 99 “Route Strategies to Support NASA Research” which is also with NASA and is going well. The team is examining CTOP routing and protected segments with Playbook routes. Recent low traffic volume due to the pandemic has provided an opportunity for the FAA and flight operators to explore alternatives to the standard route structures utilized in the NAS. As traffic returns to pre-pandemic levels, stakeholders would like to retain that flexibility without sacrificing throughput. NASA is currently exploring opportunities to improve operational efficiency through route optimization. This work correlates with existing tasks the Flow Evaluation Team has recently conducted and NASA would like to engage the expertise of the team to support the route strategy effort. NASA will utilize the subject matter expertise of the FET members in understanding current route usage along with known city pair constraints in Preferred and Playbook routes. The FET will also provide feedback to NASA on potential refinements to ATC tools and procedures that would directly impact route strategies.

Chad Wakefield reported, “our original January meeting was scheduled for the week of January 18th. Due to MLK holiday along with Inauguration activities, NASA had requested to postpone this meeting until the first half of February”. Nancy Smith, Research Psychologist - Human-Systems Integration Division at NASA Ames Research Center, has requested playbooks and other routes that Industry/FAA has identified for further efficiency gains. Upon receiving the feedback from the FET Team, NASA will evaluate potential merge points that may be utilized for further streamlining. The team had asked Nancy and her team to present the current strategies moving forward to the Executive Committee to engage Air Traffic facilities in the proposals along with a potential live testing. This briefing occurred on March 23.

The following items have been presented for further discussion during the first half of 2021:

1. The use of pre-coordinated protected segments with Playbooks, providing what would be the equivalent of catch points that let operators file more efficient routes.

2. Use of CTOP with Playbooks to further improve their efficiency. There are sort of two things here... a) using playbook routes with catch points to reach the FCAs associated with a CTOP and then taking it a step further b) to have “pre-scripted” CTOPs that have saved FCAs, saved routes and saved route guidance.

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Subteam Updates (Continued)

FET (cont.)

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On item (1) protected segments with Playbooks:

The TFMS Route Management Tool (RMT) currently defaults the protected segment <chevrons> from the end of the departure procedure to the STAR transition. The Protected Segment can be modified after the route is imported into Create Reroute, and moving it in closer to the constraint can provide operators more efficient route possibilities; however, the coordination required is time consuming and difficult. Ideally, these shortened Protected Segments would be pre-coordinated and stored in the RMT prior to pasting into Create Reroute, but this would likely require a software change.

It may be useful to explore use of shorter pre-coordinated Protected Segments even if they can’t be stored in the RMT to see how much it improves route efficiency, how acceptable it is (to facilities, airlines), whether the catch points were congested, etc. Pat Somerall suggested that summer or fall (this SWAP season) would be a reasonable time to try this out. Facilities should be adequately staffed by then, but traffic levels still down, and SWAP playbook routes will be used.

Preparing for a test would involve selecting which “plays” to include, and coordinating with facilities (and operators?) in advance about placement of the “catch” point. These could be pre-identified to streamline operations, but modified as needed based on conditions. Chad said, “we should choose routes that are recognized as inefficient, and likely to be used enough to provide a reasonable evaluation, ideally with data”.

Ernie has already asked the FET to identify some candidate playbook routes. They will also identify CDRs that are candidates for similar treatment: moving in protected segment end point/ release point/ pitch point to improve efficiency.

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Finally, the tests of both modified playbook route and CDR protected segments could be conducted with or without RMT software change.

On item (2) CTOP with Playbook routes:

The idea here is that even though the modified protected segments allow more efficient routes, the allocation of flights to playbook routes, and the timing of flights reaching the catch point could be improved. We feel that CTOP would be well suited to the problem, and the problem is significant enough, that it would be worth the trouble to use CTOP in this context.

The team however, doesn’t think this would happen anytime soon. Still, it’s a logical follow-on to the procedure modification described above, and could provide even more benefit. It is good to float the idea as yet another opportunity for TOS usage, since the FET’s already interested in that. (Question from the FET to CDM: is there a non-CTOP application of TOS that we could suggest here?)

In other news, FET has made strides on Task 100 “Real Time Coordination, Collaboration and Information Exchange”. This is the task which will explore opportunities and capabilities that could help ensure timely and effective responses to NAS constraints. Bill Bateman from MITRE, along with the Surface CDM team are targeting April 05, 07, or 08 for the ZDC and PCT STMC’s, and Industry/Flight Dispatchers to all gather for a National Operations Dashboard general overview session. This meeting will also describe what we are hoping to achieve utilizing live testing.

ZDC was selected as a possible site for task 100 testing

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Subteam Updates (Continued)

CAT (CDM Automation Team):

Jill Sparrow (FAA) & Bob Nursey (Industry) co-leads.

The CAT continued to meet virtually over the winter to hold discussions over their two open tasks. The first one being task # 95 “Flight Matching Analysis”. Jill has briefed the Executive Committee saying the team has actually wrapped up the analysis and are working on the write up of recommendations. Jill stated, “If the CAT’s recommended changes are able to be made in TFMS logic, there will be some improvements”. The recommendations may not solve all flight matching issues, but they will certainly help; allowing for more accurate data in TFMS and more accurate delay assignments, under certain conditions, for GDPs and AFPs. Bob Nursey from SWA and Ed Gannon from TFMS Second Level Support, explained the problem in layman’s terms and also explained how the recommended fixes would work. A matching problem was experienced by SWA in regards to SFO demand, and also by AAL during a very low rate GDP for LAS which does not happen often, but did during a COVID cleaning event. Flight matching problems are pretty rare, but can occur when there are back-to-back days with low rate GDPs that push flights into the next day data. Depending on how far into the future the flight is pushed, when the data for the next day drops into TFMS, the TFMS will incorrectly match the previous days flight. This will cause data to be missing on the following day and result in pop-up delay assignments. This is hurtful to the system. Bob Nursey shared some graphics and SWA data. Jill

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Subteam Updates  (Continued)

CAT (cont.)

(Continued from page 11)

further explained, “The resulting pop-up delays are often times large and the ability to substitute is limited. Even when there is not a back-to-back GDP, but rather the day after a high delay GDP and flight matching has inhibited next day upload, we still have an effect. The dropped flights would be presenting demand under what the actual demand is. My impression is that events like this contribute to scheduling/metering delays, MIT, vectors and holding”.

CAT is beginning work on Task 90, NTML Data Use and Analysis. When asked about who, what, when and how data is culled from NTML (which NextGen capabilities are dependent on the information provided by NTML for operational predictions), Jill responded that the team doesn’t have all the information on this yet and they are hoping to get more information from PMO soon. Jill advised she is participating on an NTML workgroup with AJR-G (Likely part of the 2021 five NAS performance initiatives-NTML standardization.) Currently, there are no participants from industry and the workgroup seems more focused on national training for NTML. There are a handful of suggested changes but nothing that conflicts with items the CAT has suggested. Jill advised she will keep CAT informed of any NTML change requests from the AJR-G workgroup. She will communicate with AJR-G any overlap or duplicate efforts with the CAT task.

APREQ data should be available now in the SWIM Flight and Flow data (ATD2 requirement).

The team discussed delayed NTML entries that are due to either it being a low priority for the facility personnel or the workload in the TMU prevents the TMCs from making entries. Late NTML entries do not provide users with timely updates. A partial problem appears to be human factors/work processes for TMCs. Hotline usage addresses near-term notification issues. Are there other technologies in development that would reduce external organizations dependence on the NTML, i.e. release times in TBFM (IDAC/EDC)? CAT is seeking these answers to fulfill task #90.

One the challenges with using NTML data is that there are free text entries, such as the miscellaneous tab, and areas on other tabs, i.e. the ‘justification’ section of the MRSTN tab. It’s very difficult to query free text in a data base. For example, if you were looking for data on a particular arrival flow, in free text areas, a TMC could refer to the flow as ‘arrivals’, ‘arrvs’, ‘LTFC’, ‘traffic destined’, ‘traffic dest’, etc. So one would have to be aware of multiple various terms and could still be missing some of the data in a query. ~Jill (2018)

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Subteam Updates  (Continued)

**FCT** *(Future Concepts Team):*

Esther Bryant (FAA) & Frank Oley (Industry) co-leads.

The Future Concepts Team continues its work on Tasking 97 providing feedback to the FAA Integration office on Trajectory Based Operations (TBO), and Future Flow Management (FFM). In February, the team reconsidered a draft input to FFM after reviewing the FFM Vision document they had received. Prior to receipt of this document the team was finalizing feedback to the FFM group after attendance at the Industry TBO Day in late January. Review of the vision document did answer several of the team’s questions, so it was collectively decided to submit a high level document to the NCF Executive Committee to inform them of recommendations. The recommendation includes the use of SME’s from other subteams in an ad-hoc group to further expand on the work being undertaken. This was presented to the Executive Committee this month. In the presentation, Ms. Lee Brown (JBU) who is on the FCT and also attends the Executive Committee meetings for her airline, said, “We see value in this engagement and don’t want our first level review with the ATO Strategy Office and MITRE to be “one and done”. We in industry want to support the evolution that we need.”

Esther Bryant states she very much enjoys being a leader of this team and a sounding board for NextGen concepts. She is especially interested in the newly developed programs within TBFM, and how such initiatives will contribute to improving efficiency, communication, and safety in the NAS.

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Subteam Updates  

(W)ether (E)valuation (T)eam:

For this update the WET co-leads have answered questions posed by the editor. Also, included in this edition is a spotlight on WET’s newest member Amy Galvan from the terminal area at the ATCSCC and sub-team SME. Amy has also contributed responses.

Q.) The WET meeting mentioned there will be a new way for planners to access the SFO Ken Venske forecast. It will be available from the CWSU ZOA forecast discussions. Can you elaborate how this will impact planners, or maybe there will be no impact, just have to look in a different place? Is this something that can be mentioned on the TFM Learning website? If so please pass the info to Darin and Tony (CTT)

A.) Due to outdated equipment and several technological challenges, the SFO Marine Stratus algorithm will not be available for the 2021 summer stratus season. In the past, clearing times forecasted by the model were posted on the web site along with an assortment of other information. The only information available to the site this season will be the NWS MRY weather discussion and the San Carlos (SQL) METAR. Ken Venzke, the ZOA CWSU Meteorologist-in-Charge has agreed to email the CWSU weather discussion to interested stakeholders. It is important to note the discussion will include the CWSU forecasted clearing time, but this will be the actual CWSU forecast and not the model forecast. Those interested in receiving the briefing should contact Ken at kenneth.venzke@noaa.gov. Amy Galvan answered, “I talked with a couple different PERTI and NTMO planners about this one, and no one had any input or seemed to know anything about it. Since I am not a planner I can’t really answer as to whether there will be any impact. I think it just highlights the need to get a member of PERTI to join in on our WET meetings”.

Q.) Mosaic ATM has the data they requested. How is this a win for the CDM process?

A.) Mosaic ATM has received historical data from the FAA for the 2018 and 2019 summer stratus seasons. The data will be used in conjunction with a tool developed by the Mosaic team known as the GDP Parameters Selection Model (GPSM). GPSM will use the forecast and actual clearing time data along with airport demand data to develop various delay programs and recommend the GDP parameters which result in the least amount of delay. The intent is to give stakeholders additional information when deciding on GDP parameters, given the risks associated with the forecast. Amy added that Mosaic getting the data they need is a win for CDM in that it aids in the collaborative discussion regarding the SFO operation and helps the NTMS along with the customer make the best decisions in managing stratus impacted operations through Ground Delay Programs. When we have access to GPSM, unnecessary ground delays can be reduced which in turn aids in more efficient airline operations.

(Continued on page 15)
Q.) Brandon Smith’s group sent out a questionnaire to determine if the MSFS is “the right tool”. How does the CDM team fit into his research?

A.) Back in April 2020, the NWS sent a questionnaire explaining the SFO Stratus Forecast Tool had fallen into disrepair and needed major overhauling if its use was to continue. The questionnaire asked for stakeholder comments on the need for such a tool going forward. The industry response was overwhelmingly in favor of maintaining and refurbishing the tool. With the industry in full support of a forecast tool, the NWS conducted live interviews with members of the NWS, and airlines, and developed a survey for the FAA members to help NWS determine what the specific need is. The NWS has conducted the interviews and is in the process of administering the survey. The results will be shared with WET and the team will work with the NWS and FAA to develop recommendations and guidelines for a new tool. Amy Galvan responded, “CDM fits into the SFO MSFS research.... A CDM team brings together aviation professionals from all levels of the NAS operation from Traffic Management Coordinators in the Tower, TRACON and ARTCC environment to NWS meteorologists and ATCSCC planning and operational personnel. By having all these different people participate in the MSFS research it ensures that when the product is updated and back in operation that it will be providing the best data possible to suit the decision making needs at every level of the operation.

Q.) On a past WET task, only a partial recommendation was made and executed in regards to the TCF daily review. Can you explain this removal of the password and if that is a win for the CDM process?

A.) The NWS developed a verification product for TCF. The intent was to use this product to create a daily review of the TCF forecast as part of the daily National System Review. The effort stalled for a variety of reasons. However, once the WET team learned of the verification tool and reviewed it, the team asked if it could be released for public review. NWS agreed and the verification product is now part of the TCF suite of options on the website. Stakeholders are encouraged to review the 2021 TCF training guide for details on the verification product and the TCF tool in general. The 2021 TCF training package is a great introduction to the tool. The answer provided by Amy was one that shows the necessity of knowing the TCF is quality checked. She stated, “Any improvement to the TCF is a win for CDM. Updating and improving TCF based on daily user evaluation and review ensures that the TCF is providing the data needed for Traffic Management decision makers at every level to develop the best products and implement initiatives in a timely manner to ensure the most efficient operation in the National Airspace System.

Q.) You introduced the “permeability” factor in TCF? If this is developed as a new tool, what are your hopes for such a thing?

A.) One of the NWS team members introduced a proposal the NWS is considering. The proposal is a head-to-toe review of the TCF product. More specifically, does the tool need to be refreshed/updated? Is it in need of new features? One idea proposed by WET is a permeability forecast where TCF would include a factor designed to help stakeholders understand how airspace was expected to be constrained and how much was expected to be open at any given time. The WET team hopes to develop a useable factor that can be developed as a new tool.
Subteam Updates  (Continued)

WET (cont.)

(Continued from page 15)

used by traffic planners to understand airspace availability

Q.) You are hoping for an upcoming collaboration between WET and SET? How do you see that playing out?

A.) The SET team is seeking help in coming up with the best method for determining a weather impact score for an airport. SET believes WET may be able to help with this. WET would like to introduce the TCF verification to SET as WET believes this will assist SET in developing the industry review process the team is currently working on. Amy responded that she thinks it will be good to have WET and SET collaboration in upcoming meetings. We all have our own interests and goals when managing the NAS or in the case of SET, Airline Operations. Anytime Traffic Management decision makers can get together with stakeholders it allows for a better understanding of each other’s goals. The two can work together to develop products and strategies that will best help to manage daily NAS operations while reducing impacts to customers and ensuring a safe and efficient operation overall.

WET Task 94/SFO Collaborated Weather Forecast

If you have any questions please contact:
steven.a.scheuble@faa.gov
timothy.matuszewski@united.com

Amy Galvan, WET Sub-team SME
Subteam Updates (Continued)

SET (Stakeholder Engagement Team):

Renee Fields (FAA) & Erin Cobbett (Industry) co-leads

The Stakeholder Engagement Team (SET) is transitioning to a CDM subteam from its previous position under ATO leadership. The team is tasked with building repeatable processes built on data driven decision making in the PERTI (Plan, Execute, Review, Train, and Improve) process. The SET’s primary focus on Planning and Review should facilitate enhancements in Execution, thus leading to measurable NAS Improvements. SET will identify best practices and lessons learned, produce recommendations, create a feedback loop for all stakeholders, and provide transparency across all participants.

While under ATO leadership SET focused on the Advanced Planning stage of PERTI, but the team’s current focus has shifted to Review. SET has two initial taskings, #102 Event Review Process and #103 Standardized National System Review Process.

Standardized National System Review (NSR) Process:

The NSR is a daily collaborative conference with industry representatives, Deputy Directors of Systems Operations (DDSOs), Command Center (ATCSCC), and Facility Traffic Managers. The objective is to review and evaluate the previous day’s operations and deliver a report summarizing the day. SET is working to revise the NSR for a more objective assessment of the plan (Continued on page 18)
and operation. The SET will develop a set of detailed guidelines for development, execution and delivery of the NSR.

The Joint FAA Industry Event Review is a means to conduct a detailed exploration of NAS events that exceed the timeline of the NSR. Such events could include significant weather events or other irregular disruptions which had a high impact on operations.

Objectives:

- Establish a joint review process that is collaborative and represents industry and FAA perspectives
- Detail lessons learned and potential action items
- Create a mechanism for continued system improvement and establish online community repository of event requests and findings

Organization/Structure:

- Core Committee requests information from stakeholder Points of Contacts (POCs) for each event involved.
  
  - Core Committee members include FAA QC/QA Acting as Project Coordinator and the SET
- NAS Collaborative Forum (NCF) Executive Committee has decision capability for recommendation implementation.
SET members come from a diverse background and bring complementary experiences to the team. Members include:

- Mark Barry: American Airlines, Dispatcher / ATC Coordinator
- Lauren Faith: FAA, Integration and Efficiency Specialist West
- John Lucia: FAA, National Traffic Management Officer (NTMO)
- Tim Matuszewski: United Airlines, Sr. Manager Domestic Air Traffic Systems
- Marc Meekma: FAA, Ops Research Analyst, AJO
- Frank Oley: A4A, Director, Airline Operations
- Sally Russell: JetBlue, Manager, Air Traffic Systems & Meteorology
- Eric Silverman: American Airlines, Air Traffic Management (ATM)/Airfield Operations Manager
- Edwin Solley: Southwest Airlines, Air Traffic Systems Program Manager
- Tony Vassiliadis: Delta Air Lines, Flight Superintendent, ATM Special Assignment Supervisor
- Roberta Zimmerman: United Airlines, Sr. Manager Air Traffic Strategy

The entire team sends a Thank You to the CDM community and leadership for the warm welcome, and we look forward to working with all of you in the future!

Find us at:

renee.a.fields@faa.gov
erin.cobbett@delta.com
## CDM Calendar

### Scheduled subteam meetings

<table>
<thead>
<tr>
<th>Subteam</th>
<th>Schedule Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAT</td>
<td>April 3-4 2018, April 30-May 1 2018</td>
</tr>
<tr>
<td>FCT</td>
<td>TBD</td>
</tr>
<tr>
<td>FET</td>
<td>April 15, May 13, June 17, July 15, Aug 19</td>
</tr>
<tr>
<td>WET</td>
<td>bi-weekly on Wednesdays</td>
</tr>
<tr>
<td>SET</td>
<td>Weekly; reports monthly</td>
</tr>
<tr>
<td>SCT</td>
<td>May 5, June 30, Aug 25 and with FET on joint tasks</td>
</tr>
<tr>
<td>CTT</td>
<td>50113 classes scheduled for April 6-7, May 4-5</td>
</tr>
</tbody>
</table>

Subteam Leads brief the Executive Committee Leadership on the 3rd Tuesday of every month:

- **April 20**
- **May 18**
- **June 15**

The EC Leads share subteam briefings with the full committee on the 4th Tuesday of every month:

- **April 27**
- **May 25**
- **June 22**

NCF hears teams recommendations and assigns tasks. NCF occurs on the 2nd Wednesday of every month:

- **April 14**
- **May 12**
- **June 9**

New start time! 9am Eastern
Combining Commercial Space Operations (CSO) with the busy Holiday Travel Season has proven to be a delicate balance between air space demand and operational efficiency. Each year the ATCSCC Space Operations Office provides Launch/Reentry Operators (LRO) with a copy of the Snowbird calendar depicting historically validated medium and high volume days as well as the Holiday Airspace Release Program (HARP) calendar.

LRO(s) avoid planning missions on the known higher volume and HARP designated days, however ISS Resupply and National Defense missions are still scheduled during the holiday travel season. On those occasions, robust initiatives are required to mitigate the launch/reentry impact on the NAS. The FAA has developed two major initiatives to minimize CSO impacts: Time Based Launch Procedures (TBLP) and Dynamic Launch and Reentry Window (DLWR).

Time Based Launch Procedures (TBLP) is an initiative that uses existing traffic management tools to reduce delays and reroutes associated with launch and reentries. Flow Constrained Areas (FCA) are implemented encompassing the time period which aircraft must remain clear of the Aircraft Hazard Area (AHA) based on the mission vehicle trajectory. The FCA supports common situational awareness, provides a graphical description of the constrained area, and produces a dynamic flight list of aircraft projected to enter the FCA.

Airline dispatchers and traffic management personnel at FAA facilities continuously monitor the flight list to ensure any

(Continued on page 22)
(Continued from page 21)

aircraft projected to enter the FCA during the active times are rerouted. Aircraft that are not projected to enter the FCA are left on their normal routes and are unaffected.

The goals of Time Based Launch Procedures are: Reroute only flights necessary, reduce unnecessary delays, alleviate en route sector volume, and minimize the number and length of traffic management initiatives.

Dynamic Launch and Reentry Window (DLWR) is another initiative which focuses on increased communication with launch operators to provide more certainty as to when, within the launch window, liftoff will occur.

DLRW leverages real time operational information to reduce launch/reentry associated AHA impacts to NAS users. This information sharing provides insight as to the start and end time of actual launch activity within an AHA, potentially reducing the total AHA duration and allowing access to recovered airspace.

These initiatives combined have allowed the FAA to efficiently manage airspace during launch and reentry operations and reduce unnecessary reroutes and delays. Over 3400 minutes (almost 57 hours) of recovered AHA usage has been gained this Snowbird Season alone. These savings are calculated based on early access to the AHA vs the scheduled AHA window.

NAS users can expect that, as the CSO demand continues, the ATO Space Operations Office will continue to explore opportunities to provide the safest and most efficient operation possible for all NAS Stakeholders.

Thank-you to Beth Adams (FAA) for your contributions to the NAS!
The end!

See you in June!