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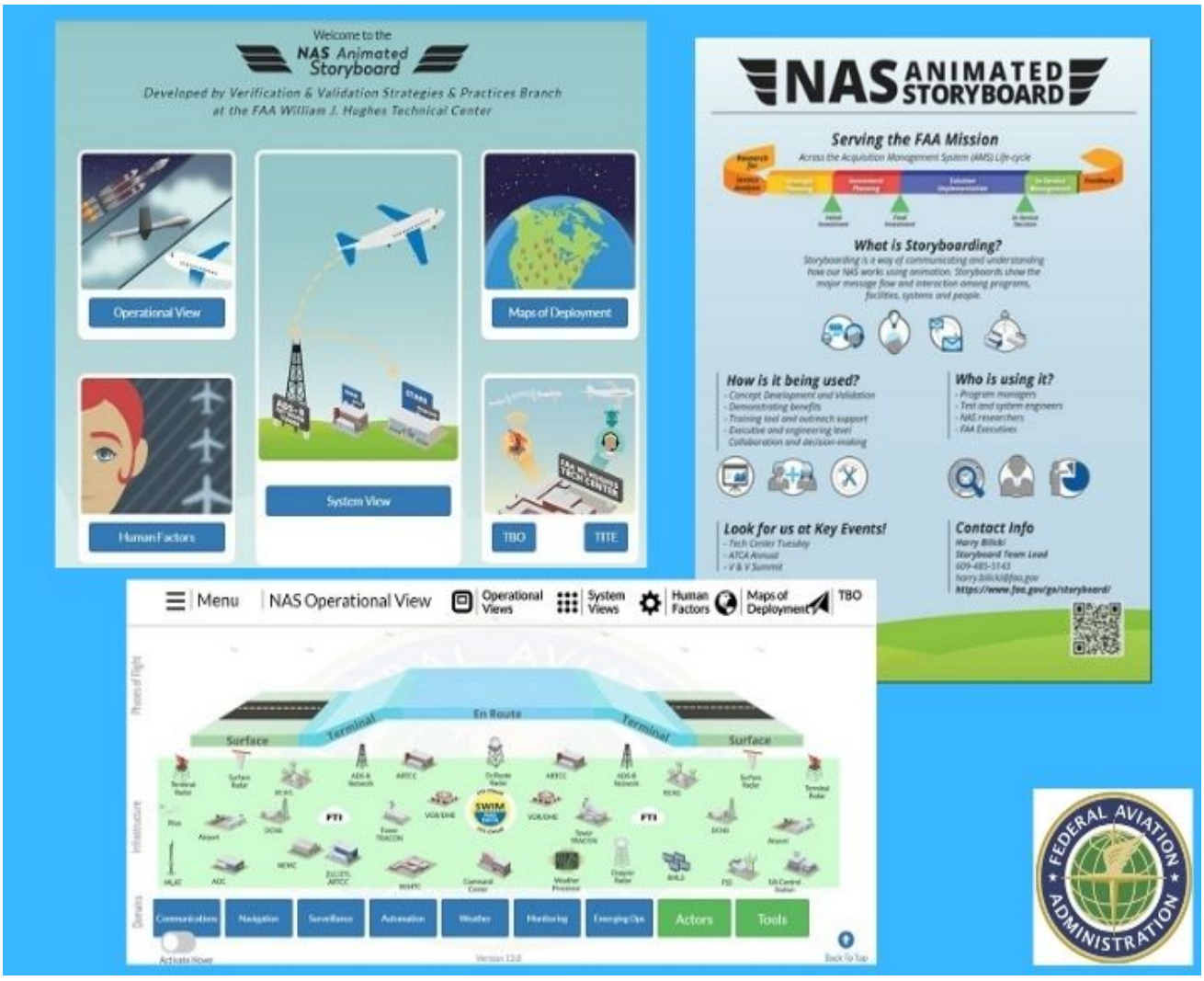
Latest Storyboard Team Efforts Animate TBO and Internship Onboarding [4]



Whether systemic, operational or procedural, storyboards created by Harry Bilicki's team of architects, motion graphics artists, and web designers deliver concept understanding and "Aha!" moments to viewers.

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If a picture is worth a thousand words, then might a moving picture be worth a million?

That kind of impact is why Harry Bilicki and his animated storyboard team are in high demand throughout the agency.

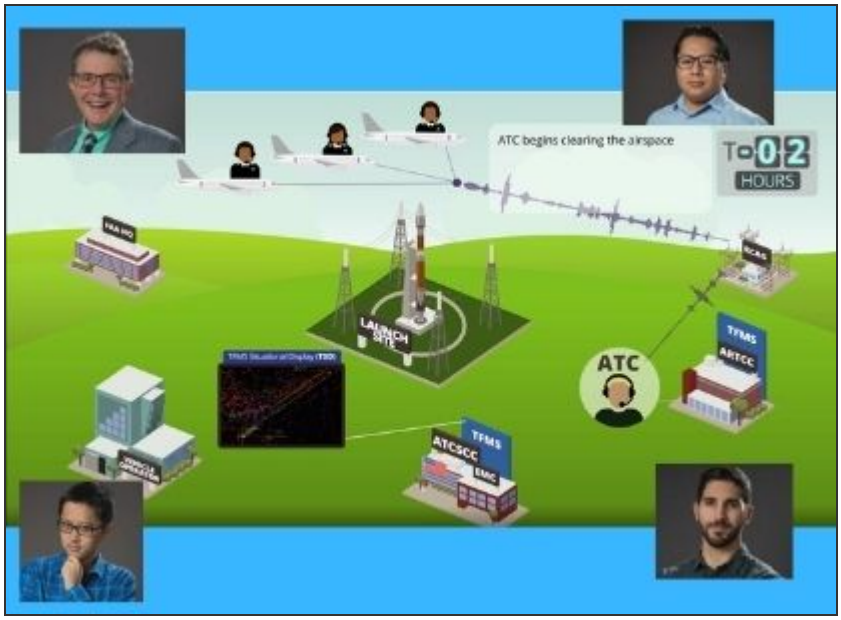
Bilicki's brainstorm a decade ago at his Thanksgiving dinner table has led to the creation of more than 50 animated storyboards (https://www.faa.gov/about/office_org/headquarters_offices/ang/offices/tc/library/Storyboard/nextgen-overview.html) that cover processes, procedures and policies associated with the national airspace system (NAS) and the NextGen Air Transportation System.

"A storyboard shows how the NAS works, using animation," Bilicki is on record as saying.

But a storyboard needn't focus on only NAS systems and operations. Practically any FAA procedure can be more clearly represented once the storyboard team animates it.

Two current projects, storyboard creation for Trajectory Based Operations, known as TBO, and intern on-boarding, demonstrate the application breadth and intrinsic value of animated storyboards.

Since conceiving the idea, Bilicki has assembled a team of storyboard architects, motion graphic artists, website designers, and auxiliary support personnel. Peter D'Amico (https://my.faa.gov/focus/articles/2018/08/Brains_and_Brawn.html), who holds a computer engineering degree from Rowan University, first joined Bilicki in 2015 and has assumed all roles. Now, he is considered a storyboard architect.



Holding a Visual Communications degree from Stockton University, Miguel Jimenez is one of the team's four motion graphics artists, who design the customized animation. He also serves as the team's website developer.

A former Gateways intern, Stockton University graduate, and Southern New Jersey

Professional Societies award winner, Cuong Nguyen is another of the team's storyboard architects.

The success of any storyboard, like commercial space transportation (shown in background), is a testament to the teamwork and expertise of all members, including (clockwise from top right) Miguel Jimenez, Peter D'Amico, Cuong Nguyen, and Harry Bilicki.

And although each team member has a specific title, roles and duties weren't always well defined. In fact, D'Amico assumed the architect role more through the storyboard creation process than by edict.

"I was Harry's first full-time hire and did everything," D'Amico recalled. "My first job was to talk to the (Airport Surface Detection Equipment, Model X) team and get their insight before developing the animation."

ASDE-X became the first storyboard. As demand subsequently grew along with the team, roles crystallized merely by the output of more storyboards. As team members joined, individual strengths emerged. D'Amico found himself doing less animation and more "architecting" for storyboards on GPS and the NextGen Integration and Evaluation Capability, NIEC.

"We came up with the division of duties between an architect and a motion graphics artist accidently," D'Amico said.

D'Amico spends most of his time holding highly technical conversations with a customer's subject matter experts (SMEs) to distill the targeted process or technology. He also researches supplemental documentation before "fitting the pieces together" to fully adapt a technology into a storyboard. His sleuthing begins with translation between technical description and visual representation. For example, D'Amico turned his initial TBO translation over to Jimenez. And while a translation from concept to cartoon may seem straightforward, it isn't always.

"It can be a challenge to make an abstract concept visually understood," Jimenez said. "However, as a motion graphics artist, it's my role to translate Pete's description into animation."

Jimenez considers the storyboard architect essential to his animation. He cites an abstract, technical phrase, "downstream constraint," from the TBO that didn't readily lend itself to visualization.

“What does this mean? How can I animate the idea?” He asked.

That’s where teammates usually lend a hand – or word. Jimenez’s visual interpretations are that much more impressive when you learn he was born in Guatemala, spoke a Mayan dialect as a child, before moving to the United States and learning Spanish and then English.

Jimenez also serves as the team’s web developer, who publishes the storyboards online. He designs a webpage with domains, coordinates colors, and applies an over-arching theme before making a storyboard live.

“Harry doesn’t put boundaries on our roles,” D’Amico said. “He facilitates most anything we want to do when developing a storyboard.”

Jimenez, agrees. “We do different projects at the same time. I might program an operational view scenario, like the NAS overview canvas, using JavaScript, and then switch to creating graphics animation for a systemic view scenario like interval management.”

Recently, Almira Ramadani, ATO Air Traffic Services research analyst and performance assessment lead for the TBO Integration team, requested a new storyboard about TBO, the cornerstone of NextGen. She wanted a storyboard that would translate complex technical information about TBO capabilities and systems to plain English, and illustrate the FAA’s TBO roll-out strategy to external stakeholders.

D’Amico took on the project and began initial research. “It’s like a spy mission,” he said.

He next met with TBO Integration team engineers and Ramadani to clarify TBO processes and how they felt a storyboard could best satisfy their objectives. Their input formed a Storyboard Design Document, which serves as both the requirements document and project blueprint.

D’Amico then met with the entire storyboard team, considered their feedback, and asked Ramadani for TBO systems and operations literature. (Ramadani delivered an entire voice-over script.) D’Amico even investigated air traffic dialogue between pilots and towers, before identifying the fundamental TBO infrastructure and systems to be animated.

Jimenez and D’Amico then began building sections in TBO storyboard “1.0.” As sections completed, they tested and demonstrated them to Ramadani’s team, which offered input. This continuous process of create-review-revise kept the project on schedule.

“If you’re off by one degree on a compass, you’ll end up miles away from the final destination,” D’Amico said. “It was a big help to get continuous feedback from the TBO SMEs. It kept us directed.”

“This was our most ambitious storyboard, yet,” D’Amico said. “Close to 15 minutes long. It took us 10 weeks to complete.”

No less ambitious was a storyboard requested by Carla Hill, the Tech Center’s Student Program manager. Hill recognized a storyboard’s advantage over her traditional, school-visit PowerPoint to help answer students’ frequently asked questions about applying for an internship. Also, an online storyboard would provide constant program information, which intern prospects could reference any time.

As architect, Nguyen oversaw the project this past summer with help from a student intern. The storyboard they designed demonstrated how to apply for an internship, what happens if a student is selected, and the conversion path to potential full-time employment. When the project continued into fall, the student’s internship extended and her duties expanded. She added voice-over to the storyboard and created with Nguyen a second storyboard for internal use that shows managers how to request and acquire an intern.

D’Amico, Jimenez and Nguyen assert that customer feedback can be both blessing and obstacle. “Feedback is how our storyboards thrive; how we live and breathe (as a team),” Nguyen said. “But because we rely on it so much, schedules and milestone dates can get thrown off.”

“We’re always getting positive feedback,” Jimenez said. “Especially at events like Tech Center Tuesday or the ATCA Technical Symposium. People tell us the storyboard is great. It helps them to understand a concept.”

“Engineers have said to us, ‘Aha! Now I know what I do!’ They go home to their families, show them the storyboard, and say, ‘That’s what I do and that’s why I love what I do,’” D’Amico said.

Customers have been as delighted with their final storyboard as Bilicki and his team are proud of each one. By visualizing and animating complex processes associated with the national airspace system, a storyboard serves as an effective, universal communications resource. The medium is the message.

“I think storyboards fill a gap here at the agency -” said Nguyen, “better communication between different branches and a better understanding of what we *all* do for the FAA.”

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Angela Moore
4 months ago

Congratulations to the Storyboard Team! Harry, I recall our conversation at the CM Conference in HQ years ago where we talked about "discipline overlays" to the AMS Lifecycle. Look how far that concept has come (including I2I)! You and your team deliver valuable work that indeed conveys a million words.

null null
4 months ago

Never a dull moment with the Storyboard Team! :)

Harry Bilicki
4 months ago

Thank you for your kind words, Angela! Hopefully, we will work together on creating a CM storyboard real soon!!

Joanna Smith
4 months ago

I think the storyboard is great! Our staffing team uses it during our on-boarding of newly hired engineers and technicians!

This page can be viewed online at:
https://my.faa.gov/focus/articles/2020/11/Latest_Storyboard_Te.html