Report on Use of Internet Meeting Technology for

FAASTeam Safety Seminar Presentations at

Sun 'n Fun, 2012.

Overview

The Citrix GoToWebinar technology was used to convey the content of the 29 FAASTeam Safety Seminars presented at Sun 'n Fun, 2012 to pilots via the internet.

This use of interactive internet meeting technology was intended to serve as a "proof of concept" for future widespread use of Webinars (or other proprietary types of web based meetings) for earning of WINGS credits by pilots not attending the seminar in person.

Method

Information for each seminar was entered into the Citrix GoToWebinar system. The FAASTeam logo was uploaded to the email notification system and to the internet "waiting room" as a means of branding the presentations to FAASafety.gov members. The Citrix system was configured to email confirmation of webinar registration, reminder emails prior to the event, and a thank you confirmation of attendance following the event. A sequential list of webinars (with their associated registration links) was created for use in completing the SPANS notices.

The information for each seminar was then entered into the FAASafety.gov SPANS system, and the GoToWebinar registration links for each seminar was included in its' notice.

Also, a dynamic seminar schedule grid was created (by Jim Pyles, FAA), and the registration links to the webinars was included in that schedule grid as well.   In addition, a scannable QR code (also developed by Jim Pyles, FAA) was developed and disseminated on printed schedules, event signage, and during the seminar events, that allowed potential attendees at Sun 'n Fun to access the seminar schedule and, potentially, to register for the live seminar or for the webinar events via the registration links mentioned above. Finally, a NOTAM for Sun 'n Fun was sent to airmen registered with FAASafety.gov, and included the SNF procedures, TFR's, a notice of the availability of the webinars, and the dynamic schedule with clickable webinar registration links.

Approximately 10 minutes prior to each seminar, the webinar organizer opened the Citrix application, opened the sequential list of scheduled webinars provided by Citrix, and launched the appropriate webinar by clicking the link under that seminar listing. The host logged into the webinar from the presenter's podium, and the organizer designated the host as The Presenter by right clicking the host name and selecting the "Make Presenter" option. The webinar was maintained in the "administrative only" mode for approximately 10 minutes to allow for muting all microphones (except for that used by

the presenter), testing of the webinar link for successful transmission of the powerpoint visuals and for quality checking of the audio signal from the podium through the webinar system.

At the scheduled start time, the Webinar "broadcast" option was selected. The organizer monitored the attendance numbers and interacted with the webinar attendees through the "Questions" and "Chat" boxes provided by webinar. During this demonstration project, the only questions that were answered by the organizer were of technical nature regarding the webinar/studio itself. When substantive questions were directed toward the presenter's content, the asker of the question was informed by the presenter of the email address they should use to submit their questions to the presenter.

The questions submitted to this email address (faasteamwebinars@yahoo.com) were fielded by a FAASTeam FPM, who forwarded the questions to the presenters for their answers.

Results

　　　　Response Rate - Approximately 300,000 NOTAMs were sent to pilots on the FAA registry. The registration links for the webinars were clicked 2184 times, and 924 of those click resulted in actual registration for the webinars. There was a total of 598 webinar attendees across the 29 broadcast sessions, which reflects an average webinar attendance of 20.62 attendees per webinar (S.D. 9.57).

　　　　Popularity by topic – Popularity of seminars is here defined as a joint function of 1) clicks on the registration link 2) actual completed registration and 3) total actual attendance at the webinar. Based on these criteria, the most popular webinars were, in decreasing order: *Avoiding Maneuvering Flight Accidents*, *Say Again? Radio Communications Done Right*, and *A Fatal Crash Course: The Top 10 Reasons We Lose Pilots.*

　　　　The three least popular seminars were, in increasing order, were: Charles Taylor "Master Mechanic" Awards, Wright Brothers "Master Pilot" Awards, and FAASTeam Safety Standdown (session 3). This third session of the Safety Standdown had a very low turnout, apparently due to the fact that the webinar attendees in session 1 and 2 were redirected to www.faa.gov/tv to view the professionally produced videos, so that anyone registered for all 3 Standdown sessions would likely not have returned for subsequent Standdown webinars, as they would have been busy watching the videos on FAA/tv.

　　　　The average attendance rate across all webinars was 64.4% of those who actually registered in advance. (S.D. 15.47).

　　　　Audience Interest/Interaction – The average attendee entered the webinar almost 15 minutes in advance of the scheduled beginning of the session (S.D. 10.92), and stayed until the session ended. The majority of questions submitted during the webinar were about technical aspects of the presentation (i.e., questions/comments about the audio levels and/or powerpoint images not changing). Only two substantive questions were submitted, and those questions were forwarded to the appropriate presenters so that they could answer the questions later by email.

　　　　Embedded Questions - Two webinars were designed so as to include randomly spaced questions during the presentation so that the 1) attentiveness of the webinar attendees and the 2) effectiveness of

the presenters communication of the material could be evaluated. In the first of those two webinars, 7 embedded questions were submitted to the webinar audience, and the response rate was 56.52 %. In the second of those two webinars, 3 embedded questions were submitted to the webinar audience, and the response rate was 26.32% (although it must be noted that one "question" was a hypothetical "Why?", and the response options offered might have been considered confusing to the webinar attendees).

Discussion

Advertising/Marketing Safety Webinars – The present application of internet based meetings had a very low response rate, given the large number of NOTAM's that were sent to pilots. It may be that most of the pilots who were not intending to travel to Sun 'n Fun ignored the NOTAM completely, thereby missing the information about the availability of webinars. Some pilots who opened the NOTAM may have had conflicting obligations (i.e., 20 of the webinars occurred during regular weekday work hours, and 5 more were scheduled on Sunday morning). Some pilots who might have otherwise been interested in the seminar content might not be internet savvy, might have assumed that there would be a cost for them to use the GoToWebinar technology, or might have been intimidated by the prospect of using an internet piece of software with which they were unfamiliar.

These concerns aside, future advertising and marketing plans could include: a) FAAST Blast articles on the ease of use of the *free* webinar access to view safety seminars for WINGS credits b) QR code utilization and NOTAM links to webinar registration pages, as was proven to be successful at SNF 2012, possibly including the entire pilot database, not just FAASafety.gov registrants, and c) addition of webinar attendance/webinar creation and presentation skills to FAASTeam representatives, so that they can use the technology for their own seminar presentations (if a FAASTeam web meeting subscription is provided to them for that purpose), and, at the very least, can communicate the basic steps required for pilots to use internet meeting software to earn WINGS credits.

WINGS Credit Issues - Since online meeting attendees are not directly observable, it seems prudent to build "attentiveness" features into those meetings if WINGS credits are to be awarded. The main objection to using the web meeting "attendance rate" statistic provided by Citrix is that the attendee could log into the meeting and then leave their computer. The concept of including embedded questions that are randomly spaced during the presentation could be used to ensure attentiveness of attendees, but the attendees should be informed of the need to vote on all poll questions prior to the awarding of WINGS credits for webinar attendance. This could be accomplished with an intro slide inserted into the presenters Powerpoint that outlines the requirements to be met for WINGS credits.

Limitations of the Technology – At present, bandwidth limitations negatively affect the transmission of moving video images. As was observed during the SNF webinars, amateur-created videos embedded in presenters' powerpoints did not transmit clearly through the Citrix system. Videos produced on high-end/professional/prosumer equipment were transmitted on GoToWebinar more clearly, but some degradation of the visual quality of the images was still noted. Unless and until internet meeting technology developers increase bandwidth available for streaming video, presenters

should be encouraged not to use embedded videos or should be briefed to give verbal commentary on the video as it is played so that online meeting attendees are made aware of the visual content that they may be missing.

<u>Potential Applications for Internet Meeting Technology</u>

<u>Use of Internet Meeting Technology for Remote Training of FAA and/or FAASTeam Reps</u> – Internet based meeting technology has an obvious application in conducting small or large scale administrative meetings (e.g., Southern Region Administrator meeting with all facility front line managers in the region, without the need for travel to the site of the administrator). With the smaller and less complicated GoTo Meeting option offered by Citrix (and, likely, other vendors), web camera images can be transmitted successfully (although not very high in quality), thereby providing some of the face-to face information that would be conveyed in an in-person meeting.

Another potential use of internet meeting technology would be to provide training to FAA personnel and/or FAASTeam representatives in the field. Again, use of online technologies to provide standardized training would reduce the cost/time of travel, per diems, etc. required for training. In fact, Citrix online meetings can be recorded, and the same meeting could be used, for example, to train all FAASTeam reps on upgrades to FAASafety.gov, allowing for standardization of the information and training that they are provided.

<u>Use of Internet Meeting Technology by FAASTeam Reps in the field </u> - In the event that a subscription to an online meeting technology is made available to FAASTeam reps, this technology could be used to make local meeting(s)/speakers available to anyone with an internet connection. Not only would this give speakers a wider audience, but pilots in one area could have access to information/speakers that are not available in their area (due to cost or distance).

<u>Lessons Learned</u> – A dedicated, trained team of administrative personnel is required to make a webinar a success. At least two administrative staff are recommended: one would serve as the organizer and the other would serve as a presenter or panelist (to answer any questions submitted from the internet audience). It appears that only the most experienced presenter could run the webinar, present and field questions at the same time. Thus, at least two separate computer stations are needed to run each webinar.

Audio issues seemed to be the biggest problem with the webinar presentations. Suggestions include: run the webinar in administrative mode only prior to the start time and perform routine audio checks before broadcasting; be aware that some computer-based video viewer software may automatically reset audio levels, so it is important to "unselect" any audio auto-adjust features.

Presenter training and "dress rehearsal" prior to the webinar would have allowed some of the speakers to attend to and field typed questions coming in from the internet audience. Mentally, this

requires a bit of a juggling act by the presenter, and, unless this skill is practiced in advance, the use of an expert panelist is recommended to handle webinar attendee questions.

Last, there are those who expect that a webinar will essentially be a "tv show on the internet", and who are disappointed that they are not able to see the presenter. The cost of broadcasting real-time video is very high, not only considering the hourly cost of satellite time, but also the investment in equipment and professional crew to produce high quality "tv-like" programming. In this case, the solution to address this concern was to have the production crew did videotape all presentations for editing and later uploading to www.faa.gov/tv or youtube.

Conclusion

The Citrix version of online meeting technology was combined with the FAASafety.gov SPANS system to provide remote participation in 29 seminars by persons not attending Sun 'n Fun 2012. This technology allowed us to almost double the level of participation (internet attendees were almost equal in number to in-person attendees). In terms of providing access to the safety information presented at the FAA Safety Center during Sun 'n Fun, the use of webinars was a success.

To the extent that the pilot population becomes more technologically accomplished, more pilots may avail themselves of this type of internet technology to receive safety information. The benefits to pilots are no need to travel to the location of the "presenter", and, if recorded sessions are made available for future viewing, the library of safety information maintained by the FAA would increase in size quite dramatically.

Compared to past methods of sharing SNF seminar information with those not attending SNF, internet meetings, while not providing a "tv-like viewing experience", are dramatically less expensive, less labor-intense in terms of the number of staff needed to present the webinar (vs. true "broadcast"), and preserve the option for audience participation that is not available with "broadcast" sessions.

In closing, the internet meeting technology has been demonstrated to successfully provide access to meeting or seminar content to remote viewers in a cost effective manner, with a small administrative staff, and with a minimum of set-up time and equipment. The many applications of this technology within the FAA and the FAASTeam should be exploited to reduce costs and increase information flow and standardize training.

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[i]Kdd 4/6/12 ref SNF2012 webinar summary statistics