Community Engagement: Best Practices

The Wing-MAAP team's guide to working with communities

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INTRODUCTION

This document contains information and background that Wing and Virginia Tech's Mid-Atlantic Aviation Partnership (MAAP) have found to be helpful in engaging with a community prior to and during operation of a drone package delivery service. The information has been collected through engagement during multiple launches of Wing's delivery service - in Australia, Finland and the United States - and ranges from providing briefings to high-level public officials to direct conversations with community members at public events. It does not include discussion of engagement through media or social media, but is instead focused on our attempts to engage directly with community members in person.

With most new and emerging technologies, adoption depends on customers and communities seeing the value of the new service provided and embracing rather than resisting new ways to receive products. Wing and MAAP recognize that the only way for a drone platform to be successful is to provide a service that customers find useful, and that the larger community deems acceptable. Without community acceptance, the service simply won't work. To that end, Wing and MAAP make it a priority to engage with and assimilate into a community prior to introducing our drone delivery service. And whenever possible, we act on community feedback to adopt changes and improvements to our service.

Humility is an essential quality when launching a drone delivery service in a new market. Each community has its own needs and sensitivities; its own history and way of life. While we may know our technology better than anyone else, community members know best the kind of service they require. Approaching community engagement with an understanding that the community itself has some of the answers to a successful drone operation is an important principle.

It is also important to note that different applications of drone technology involve different levels of engagement with members of a community. A package delivery service like what Wing provides is inherently a high-visibility application that involves a great deal of direct interaction with customers as well as non-customers. For that reason, Wing and MAAP used an intensive, high-touch approach of engaging community members prior to launching the service. Other drone applications may involve less interaction with community members, and therefore each and every element of the strategy discussed below may not apply.

OVERALL STRATEGY

For our community engagement efforts, Wing and MAAP incorporated three overarching principles in our approach: educate, listen and respond. These three components support an outreach strategy that furthers our broader goal of launching a service that best meets the community's needs and minimizes impacts that may be perceived as negative.

A Note About COVID-19:

As noted throughout this document, a key to effective outreach is to have direct, in-person conversations with community members to convey information and elicit feedback. During the COVID-19 pandemic, those opportunities are extremely limited or simply not available at all. Instead, Wing and MAAP have pursued engagement opportunities online and in the form of virtual meetings. Phone calls and video conference presentations to local groups and organizations have taken the place of booths at festivals and in-person meetings. These events still allow Wing and MAAP to continue conversations with community members and highlight new developments with the drone delivery service, which is particularly relevant given the surge in demand for our services during the pandemic. Having already established strong community connections through outreach efforts prior to launching service, Wing and MAAP were able to draw from those relationships to understand and respond effectively to the community's changing needs. Additional strategies include highlighting service updates through local media channels and supporting local fundraising efforts for frontline workers during the pandemic.

Educate

Perhaps the most important component of gaining community acceptance is educating community members on what your particular drone platform is, as well as what it is not. Community members may approach the concept of drone operations with certain preconceptions, some of which may be negative, and apply those thoughts to any and all drone operations without recognizing that drone platforms vary widely in how they operate and for which applications they are used.

At Wing, as with many other drone companies, an enormous amount of effort went into customizing our drone service and package delivery system to meet particular performance requirements while sacrificing other capabilities that are not essential to our operations and, in some cases, could engender public concerns (e.g. we do not employ a camera with images viewable by the pilot). As part of that process, we have also worked to address key concerns that we hear frequently about UAS technology.

When speaking with community members, concerns are generally raised around recurring themes; particularly safety, privacy and noise. Those concerns could be developed through personal experience, but are often based on news reports or general background about drones that don't necessarily apply to all of the various different platforms that now exist.

Being present in a community before your drone service has begun provides the opportunity to educate community members about how your service operates, what benefits it provides and how you plan to establish appropriate channels for continued community interaction. It also allows you to hear about particular concerns, explain how you have addressed or plan to address those concerns, and to clear up any misconceptions about how your particular drone platform operates.

For example, many people share concerns about drones taking video footage of their homes or activities. When we have community events, we explain that Wing drones have a downward-facing, low resolution, grayscale camera that is used for navigational purposes. Community members who have expressed concerns appreciate the information about Wing and our operations.

Bringing an understanding to the general public of the benefits of drone services, while noting the ways in which recurring concerns have been taken into account, can be one of the most challenging yet effective efforts in developing public acceptance.

Listen

Direct in-person presence allows for dialogue: helping the drone operator get crucial feedback from potential customers while allowing people to share their thoughts and concerns in a way that reassures them they are being heard by the drone operator. These interactions can also provide key insight for the drone operator on how to make meaningful improvements to its service.

It can be helpful in both the short- and long-term to develop a system to collect data on public sentiment that will allow you to track general trends and reactions

(detailed below in the "Capturing Public Sentiment" section). Conversations at a community festival booth can sometimes be brief, but providing contact information so that individuals can follow up with real people has proven to be helpful in continuing those conversations and building relationships.

Listening to the views of community members and extending these conversations means community members feel they are being heard and are part of the process of developing a new service. Because sentiment towards drone delivery and drone operations in general will vary widely in a diverse community, it will likely be impossible to address or resolve every individual's potential concerns. However, providing an avenue for community members to directly voice their opinions can be constructive and contribute to the success of a drone service in the community.

For larger operations, listening to community members also involves conveying relevant input to the appropriate department or team. To ensure the experience is effective from a community member's perspective, that means that the staff member taking feedback must see that feedback is delivered to the appropriate staff who can address it. Failure to follow up on a question raised by a community member, particularly if part of a broader trend, can spoil the outreach efforts and poison the well for your company's longer-term relationship with that community.

Respond

An important component to listening involves the ability to respond to whatever feedback is provided. First, consistency in responses provided is important so developing a common script that all team members can work from ensures that community members are receiving the consistent responses to common questions. Team members working at outreach events could come from varied backgrounds or have varied levels of expertise, so working from a standardized set of responses to commonly asked questions will help to avoid any confusion for community members who could otherwise come away from an interaction having received discordant or conflicting information.

When well-founded complaints or concerns are voiced, it is important to respond with concrete action in an attempt to resolve the issue. In the case of Wing's engagement, much of the feedback has involved the provision of service itself: Can we provide service to an address or neighborhood? Can we provide additional services - deliveries over a longer time period or provide additional items for delivery?

In many ways, this can be viewed as positive feedback, as it shows that community members and customers enjoy the current service and would like to see it expanded. When possible and when it makes sense from the perspective of growing the service

long-term, Wing attempts to accommodate these requests. For example, we have expanded our merchant offerings on the app in Australia to include additional merchants who offer a much larger selection of goods for delivery to our customers and we continue to explore ways to expand our delivery area.

Other feedback could involve complaints about a drone operation: when and where the operation takes place, proximity to certain areas or homes, the noise or other disturbance associated with operations, etc. As an example, in its early operations Wing received feedback related to the noise emitted by our drone operations. In response, Wing addressed those concerns by taking measures such as redesigning our hover propellers to reduce both the volume and pitch of noise generated by our drones. Another example is that Wing has designed its route planning software to randomize routes in a way that distinct "drone highways" or specific routes are not taken for each and every flight in an effort to minimize repeatedly flying over any given land parcel when making deliveries. In addition, locating the base of operations in a commercial district rather than in close proximity to quiet residential areas can ensure that the highest concentration of flight activity is localized in a part of town already busy with commercial activity.

Being able to demonstrate that a drone operator can and will take action to address community concerns is effective when talking to community members to show that drone industry participants value the feedback they receive and take concrete actions to do something about it. Not every concern can be addressed with a direct solution, but experience has shown that community members value efforts taken to listen and address issues raised within the communities being served.

STATE & LOCAL GOVERNMENT

Well in advance of the date scheduled for operations to begin, a drone operator may want to set up meetings with the relevant state and local government officials, as well as other important stakeholders who are known within the community. Local government officials include the Mayor and City Manager, members of the Town or City Council, County Board of Supervisors and key staff, local economic development officials and others that may be identified as being important.

State officials would include key members of the governor's team and cabinet, department of aviation officials, local members of the state General Assembly as well as their staff.

It is important to conduct these meetings early in the process of beginning a drone operation for several reasons:

- » To ensure that local decision-makers are equipped with early knowledge of the situation so they can be an informed voice with their constituents.
- » To get to key stakeholders early so that they are hearing accurate information directly from the drone operator rather than potential misinformation from other sources that would require effort.
- » To provide an opportunity to begin two-way conversations and build relationships with stakeholders, allowing ample time for them to approach us after an initial meeting with further questions and to provide us time to follow up with responses on any concerns.

Holding these conversations early allows ample time for the outcome of these meetings to inform future outreach, so that insights gleaned from stakeholders can help the company tailor their outreach approach and their service more effectively to the specific needs and priorities of the community.

The purpose of these initial meetings is to introduce your company to local officials, describe to them your plans and goals, expand on the benefits of your services, provide the officials with an opportunity to ask questions or express concerns, and to solicit advice from local officials on other important stakeholders to talk to and any particular actions that should be taken in becoming a member of the community. Perhaps most importantly, these meetings help with forging important relationships with key stakeholders in a friendly, introductory environment.

This initial set of meetings with local elected and state officials can be followed by additional meetings with important stakeholders in the community, which can include potential supporters who can speak positively of your presence to other community members as well as potential groups who may be cautious about embracing drone delivery services.

ADDITIONAL STAKEHOLDERS/PARTNERS

Stakeholders include the local chamber of commerce, leaders at local educational institutions, leading voices in various different local communities or groups (e.g. particular cultural associations, active technology/robotics or environmental groups, local AARP chapter, etc.). Given that drone technology must safely share the skies with other types of aircraft, it is also important to have your company's drone pilots and technical experts meet with members of the local aviation community to explain your concept of operations and provide lines of communication to ensure any and all questions can be answered.

Experience has shown that conducting these meetings with a respected local partner, if possible, can be very effective in allaying concerns and driving support. As an example, in launching its Virginia operations, Wing's partnership with MAAP, a division within Virginia Tech, carried with it the valuable affiliation with the university. Including representatives from MAAP in meetings reinforced with the local community that Wing had the support of a trusted local partner.

IDENTIFYING OUTREACH OPPORTUNITIES

Every community presents opportunities for a drone company to engage with community members simply through participating in the large-scale, public events that are hosted within a community each year. These can range from farmers' markets to street fairs, health & wellness events to music or food festivals. Some events won't be appropriate for engaging in discussions about providing drone services. However, events that attract a good cross-section of the community and that allow you to rent out or set up a booth can provide a great opportunity to engage with the community. Something as simple as scanning community event calendars can be helpful in identifying good options. If you are unfamiliar with a community, local elected officials or other community leaders are often happy to suggest good options.

It can be worthwhile to think creatively about outreach opportunities. Consider securing a presence at events that may not traditionally be associated with a new and emerging technology like drone operations. As an example, Wing and MAAP have had success by identifying outreach opportunities such as home shows, aging

conferences and AARP chapter meetings to start conversations with community members about the benefits of drone package delivery. Thinking about drone operations as a way of improving people's everyday lives rather than just an exciting new technology can change people's perspectives and helps to re-frame the way that a community views the role of drone operations. This perspective can also be helpful in identifying outreach events and framing your message as you engage with community members at those events.

CAPTURING PUBLIC SENTIMENT

While engaging with a community about your company's drone operations, it is important to be able to track the extent and nature of the feedback provided. Being able to quantify the number of community members that you spoke to can be important information for federal regulators, local leadership and internal discussions that can shape the future direction of the company. In addition, capturing information about whether community members feel positively or negatively towards your operations and what specific factors weigh into those feelings can be extremely important in analyzing your success in a market and gauging how to grow and adapt.

In a common situation, a drone company team member will find herself staffing a booth at a community festival or other public place and engaging in one-on-one (or group) conversations with community members in somewhat crowded environments. Those situations are not always conducive to taking timely and specific notes about particular questions or concerns that a community member may voice. To address that challenge, one possible solution is to incorporate a system of tracking public sentiment by using tablets during events and minimizing the amount of work an employee would have to do at the event to provide an accurate sense of a community member's feedback. Using a document with predetermined categories that generally describe the nature of positive or negative sentiments can quickly provide information about the number of people sharing feedback, and what specific type of concern it is. Staff can also take notes after the interaction if more specificity is needed. For particularly crowded and chaotic events, it can be effective to designate one person on staff to focus on collecting feedback with the tablet rather than engaging in conversations with community members.

Feedback collected at community events is valuable to ascertain information about broader trends. By having direct contacts with thousands of community members, it allows you to get a good cross section of community views about your service. In the case of the Wing-MAAP team, for example, these direct, organic conversations

inform us about how a particular community values the convenience, product offerings or environmental benefits of our service, and allow us to hear questions or concerns. In addition, collecting feedback through the use of a document with predetermined categories allows for collection of standardized data across multiple markets with the ability to run comparative analysis between those markets.

During community outreach events, there is the potential for uncomfortable or tense conversations with members of the public who may disagree with the service or have more general concerns about new technology. This could involve someone using offensive or derogatory language, acting physically aggressive, or using a cell phone to record an awkward exchange. In Wing's experience having hosted over 100 information booths across three countries, uncomfortable situations have been extremely limited and relatively mild in nature. Nonetheless, it is important to remain prepared in case a situation arises.

If such a situation arises, it is advisable to use conflict resolution practices such as maintaining eye contact, actively listening, and keeping a friendly rapport while also making a note of any action items. Actions items could include tracking down follow up information that a team member doesn't have at the ready in order to share with the community member at a later date. For public events, always consider security arrangements, including taking note of any law enforcement presence. Consider adopting a policy of requiring at least two team members present in order to avoid leaving one employee to handle a situation by him or herself. Developing and talking through an action plan beforehand is also important so that team members are confident in what steps to take if such a situation arises.

GUIDELINES FOR COMMUNITY OUTREACH EVENTS

Apart from participating in broader community festivals or events, your drone operation's outreach events will often fall into two categories: a community stall/booth, or a community demonstration. At Wing, stalls/booths will involve a table where staff can display the drone, a representative package used in our deliveries, and accompanying materials that help demonstrate how the technology works. We have found that simply having the drone itself on display is very effective in attracting the attention of community members. It is also a good way of introducing people, particularly children, to the aircraft in a way that is not intimidating and allows them to examine the components up close.

Flight demonstrations can be even more effective in allowing community members to see how the technology actually works. Staff can identify suitable plots of land in a community that can host members of the public while also being able to provide for a safe demonstration of the drone technology. During a flight demonstration event, it is advisable to space out the flights so that community members can filter in and out of the event and still witness how the system works. At flight demonstrations, staff should also have a stall or booth to help with providing informational materials, answering questions, and helping people sign up to use the service.

OUTREACH EXPERIENCE FOR THE WING-MAAP TEAM IN VIRGINIA

Wing began its drone delivery operations in Christiansburg, Virginia in October, 2019 in partnership with Virginia Tech's MAAP and the Virginia Center for Innovative Technology under the U.S. Department of Transportation's Integration Pilot Program. Leading up to the launch of service, Wing and MAAP jointly executed a comprehensive community outreach strategy that closely followed the principles laid out above.

Targeted Outreach with Government Officials and Local Stakeholders

In the summer and early fall of 2019, Wing and MAAP scheduled meetings with Town Council members for the Town of Christiansburg, members of the Montgomery County Board of Supervisors, the Governor's office, and federal and state legislators who represent the region. In these meetings, we briefed officials on the background of Wing, our plans for operations in Christiansburg and our strategy to engage local community members about the upcoming service. In each meeting, we also solicited feedback from the officials in an effort to gauge their level of support, understand any advice they had for us to maximize our success, and learn of additional stakeholders in the community we should meet with directly. These initial meetings also served as friendly introductions to lay the groundwork for constructive longer-term relationships going forward.

In addition to elected leaders, the Wing-MAAP team also met with prominent local stakeholders and members of key groups. These groups ranged from the local chamber of commerce to law enforcement and first responders, including the local police and fire departments as well as the county sheriff.

Wing and MAAP team members with Christiansburg Mayor Michael Barber

We also scheduled meetings with key aviation stakeholders to ensure coordination with other groups who would be using shared or neighboring airspace. These groups included the manager of the local airport, leaders in the local medivac and helicopter community as well as members of the local drone hobbyist community. We were careful to include our pilots and technical staff in these meetings in order to engage in discussions that could delve into specific and technical aviation issues.

Presence at Widely-Attended Community Events

Wing and MAAP worked to identify community festivals in the region that would be suitable for securing a Wing-MAAP booth where we could provide flyers and background materials to distribute, display a drone and our delivery mechanism to demonstrate our technology in-person, and have staff on hand to explain our plans and answer questions.

MAAP and Wing team members at Christiansburg's Touch-A-Truck festival

The events ranged from the largest regional street festival to much smaller and more intimate gatherings that attracted more modest foot traffic. As an example, Wing and MAAP team members staffed a booth at Steppin' Out Blacksburg, a two day festival that generally attracts roughly 40,000 attendees. Other events included the Kiwanis Wilderness Festival, the Christiansburg Food Truck Rodeo, and multiple appearances at the local farmers market and a kiosk in the indoor mall.

Attending these events allowed Wing and MAAP to interact with a large number of community members, educating them about our drone delivery service while also getting important feedback from potential customers. Having a presence at a range of different events also allowed us to build awareness with a wide variety of community members from different neighborhoods and income brackets.

Importantly, Wing and MAAP continued to have a presence at community events and local gathering places after the initial launch of our delivery service. This continued presence helped demonstrate a commitment to the community and allowed community members to continue dialogue with us. Discussions changed over time as well, with initial conversations focused on educating the public about who we are and what we do and later conversations focused on troubleshooting how people can sign up for the service and taking suggestions for how the service could be improved.

The Wing-MAAP team has also found ways to expand our outreach once the delivery service was up and running. We have invited several groups of community members, including entire classes of middle and high school students, to Wing's base of operations in Christiansburg to provide background on the drone delivery operation and educate more generally on drone technology and safe operation. The Wing-MAAP team has found these opportunities to be very well received by student groups and an effective tool to help generate enthusiasm among local students to pursue careers in the field.

Tour of Wing's Christiansburg operation

Hosting Information Sessions and Flight Demonstrations

Wing and MAAP hosted multiple events that allowed for community members to witness the drone delivery system in person prior to Wing's service officially beginning.

Wing organized a widely-attended gathering, held at a large centrally-located outdoor space. Wing sent invitations by mail to a large majority of the residences within the delivery footprint, inviting community members and local leaders to attend a picnic event on a Saturday afternoon. At the event, Wing, MAAP and other partners each had booths staffed by employees to provide information and materials with details about how the service would work. Most importantly, over the course of the event Wing made drone deliveries to the event every 15 minutes to allow attendees to witness how the technology works up close. Exhibiting the delivery system in person prompted constructive questions from attendees and potential customers. It also served to build a comfort level in, as well as excitement about, the upcoming service that we would offer.

In addition to the picnic-style event, Wing and MAAP hosted smaller scale demonstrations at other venues around town. These events were announced beforehand on local media and, although they did not include the enticement of free food, also provided the opportunity for attendees to witness deliveries firsthand. At each event, Wing and MAAP had staff and background materials on hand to provide helpful information and answer questions between deliveries.

Hosting multiple flight demonstration events provided different opportunities for community members to view the delivery system prior to launch in case one particular date wasn't suitable for everyone. Varied venues around town helped us expose a cross section of the community to the service. We have found that witnessing the experience in person was an extremely effective tool in educating the community about drone delivery and helped create local excitement about its benefits.

Taken as a whole, Wing and MAAP found the strategy described above to be successful in creating an overwhelmingly positive community response to the drone delivery service. Engaging early and establishing constructive relationships with leaders and community members helped pave the way for a successful launch of the delivery service and began a constructive dialogue with the community from which we continue to benefit as we work to modify and improve the service.