APPENDIX A: SURVEY QUESTIONS

Qualtrics Survey

The following questions compose the survey that served as the primary mechanism for reaching the chosen target audiences. These questions composed a larger survey that the research team developed in Qualtrics. The research team distributed the survey online via LUCiD as specified in Section **Error! Reference source not found.**.

Survey Outline

The following outline represents a high-level overview of the survey instrument for this research. It captures the primary data categories, example information that the research team will collect, and it provides a general description of the types of questions that will be employed. Additionally, it will outline measurement scales and other metrics for use in performing data analysis and quantifying the results.

Section 1 – Participant Demographics

1. What is your age?
   - 18-24
   - 25-34
   - 35-44
   - 45-54
   - 65+
   - Prefer not to answer.
2. What is your gender identity?
   - Male
   - Female
   - Non-binary/third gender
   - Prefer not to answer
3. Which category describes you?
   - American Indian or Alaska Native
   - Asian
   - Black or African American
   - Hispanic/Latinx
   - Native Hawaiian or Other Pacific Islander
   - White
   - Other (Fill in the blank)
   - Prefer not to answer
4. What is your highest level of education completed?
   - Less than a high school diploma
   - High school degree or equivalent (e.g., GED)
   - Vocational/Trade Certification
   - Some college, no degree
   - Associate degree (e.g., A.A, AS)
   - Bachelor's degree (e.g., BA, BS)

- Master's degree (e.g., MA, MS, MEd)
- Professional degree (e.g., MD, DDS, DVM)
- Doctorate (e.g., PhD, EdD)
- Prefer not to answer

5. Are you a pilot?
   - Yes (Fixed-wing and/or Conventional Helicopter?)
     - Sport Pilot
     - Private Pilot
     - Commercial Pilot
     - Airline Transport Pilot
     - Other (Fill in the blank)
   - No
   - Prefer not to answer

6. What is your household income?
   - Less than $20,000 a year
   - $20,000 to $34,999 a year
   - $35,000 to $49,999 a year
   - $50,000 to $74,999 a year
   - $75,000 to $99,999 a year
   - $100,000 to $124,999 a year
   - $125,000 to $149,999 a year
   - $150,000 to $174,999 a year
   - $200,000 to $224,999 a year
   - $225,000 to $$249,999 a year
   - Greater than $250,000 a year
   - Prefer not to answer

7. What is your employment status?
   - Employed full time (40 or more hours per week)
   - Employed part-time (up to 39 hours per week)
   - Unemployed and currently looking for work.
   - Unemployed and not currently looking for work.
   - Student
   - Retired
   - Homemaker
   - Self-employed
   - Unable to work.
   - Prefer not to answer

8. What is your current work location?
   - Work from home
   - Work in an office
   - Hybrid (combination of office and remote)
   - Other (e.g., outside a traditional office or the home)
   - Not Applicable

- Prefer not to answer.
9. What is your marital status?
    - Single (never married)
    - Married or in a domestic partnership.
    - Widowed
    - Divorced or separated.
    - Prefer not to answer
10. What is your zip code?
    - (Fill in the blank)
    - Prefer not to answer
11. What location best describes your residence?
    - Urban area (typically refer to cities that are densely populated hubs of commerce)
    - Rural area (typically characterized by a lower population density between 2,500 and 50,000)
    - Suburban area (typically characterized by clusters of properties that are primarily residential)
    - Prefer not to answer
12. What location best describes the destination of your primary commute?
    - Urban area (typically refer to cities that are densely populated hubs of commerce)
    - Rural area (typically characterized by a lower population density between 2,500 and 50,000)
    - Suburban area (typically characterized by clusters of properties that are primarily residential)
    - Prefer not to answer
13. What is your primary means of transportation for your daily commute?
    - Public transit (e.g., bus, metro system, and/or light rail)
    - Personal vehicle
    - Mixed mode (e.g., public transit and other forms of transportation)
    - Carpool/Rideshare
    - Bicycle
    - Other (please explain)
    - Prefer not to answer
    - Not Applicable
14. How far do you estimate you commute daily (round-trip)?
    - 10 miles or less
    - 11 - 19 miles
    - 20 – 29 miles
    - 30 – 39 miles
    - 40 or more miles
    - Not applicable
    - Prefer not to answer
15. How long do you spend on average commuting daily (both ways)?
    - 15 minutes or less

- 16 – 30 minutes
- 31 – 60 minutes
- 61 – 90 minutes
- 91 – 120 minutes
- 120 minutes or greater
- Not applicable
- Prefer not to answer

16. How do you feel about your daily commute regarding traffic and roadway congestion?
- Strongly like
- Like
- Neither like nor dislike
- Dislike
- Strongly dislike
- Not Applicable
- Prefer not to answer

17. On average, how much do you spend on your commute per week? This may include totals for fuel, public transportation, and/or ride-sharing costs?
- $10 or less
- $11 - $25
- $26 - $50
- $51 - $99
- $100 or more
- Not applicable
- Prefer not to answer

18. How do you feel about the expense of your commute per week?
- Strongly like
- Like
- Neither like nor dislike
- Dislike
- Strongly dislike
- Not applicable
- Prefer not to answer

19. How far is the nearest (small; non-international) airport from your residence?
- Less than 5 miles
- Between 5 and 10 miles
- Between 10 and 15 miles
- Greater than 15 miles
- Prefer not to answer

20. How far is the nearest large, international airport from your residence?
- Less than 5 miles
- Between 5 and 10 miles
- Between 10 and 15 miles
- Greater than 15 miles

- Prefer not to answer

21. What is the most obvious source of noise pollution near your residence?
    - Road or highway
    - Railroad
    - Airport
    - Industrial area
    - Other – Please explain

22. From the previous question, how far is the source of noise pollution from your residence?
    - Less than 5 miles
    - Between 5 and 10 miles
    - Between 10 and 15 miles
    - Greater than 15 miles
    - Prefer not to answer

23. From the previous questions, how much of a nuisance is the identified source of noise pollution?
    - Not at all
    - A little bit
    - Somewhat
    - A lot
    - Very much
    - Prefer not to answer

Section 1.2 - General Questions

24. How strongly do you feel about this statement? "I am familiar with Advanced Air Mobility (AAM) and/or Urban Air Mobility (UAM)."
    - Strongly Agree
    - Somewhat agree.
    - Neither agree nor disagree
    - Somewhat agree
    - Strongly disagree

25. How comfortable were you flying via commercial airlines (recreational and/or business travel) before the COVID-19 pandemic?
    - Extremely comfortable
    - Somewhat comfortable
    - Neither comfortable nor uncomfortable
    - Somewhat uncomfortable
    - Extremely uncomfortable

26. Has COVID-19 affected your willingness to fly via commercial airlines?
    - Yes
    - No

27. If your willingness to fly commercial airlines has been affected by COVID-19, please indicate your level of comfort when flying commercially?
    - Extremely comfortable
    - Somewhat comfortable

- Neither comfortable nor uncomfortable
- Somewhat uncomfortable
- Extremely uncomfortable

28. Please indicate your level of comfort regarding COVID-19 if sharing a flight on a small aircraft with between 4 and 6 passengers.
    - Extremely comfortable
    - Somewhat comfortable
    - Neither comfortable nor uncomfortable
    - Somewhat uncomfortable
    - Extremely uncomfortable

29. How comfortable are you flying in an aircraft that is piloted – e.g., pilot and/or co-pilot operating the aircraft from a flight deck?
    - Extremely comfortable
    - Somewhat comfortable
    - Neither comfortable nor uncomfortable
    - Somewhat uncomfortable
    - Extremely uncomfortable

30. How comfortable are you flying in an aircraft that is remotely-piloted – e.g., the aircraft is operated by a pilot that is not located within the aircraft?
    - Extremely comfortable
    - Somewhat comfortable
    - Neither comfortable nor uncomfortable
    - Somewhat uncomfortable
    - Extremely uncomfortable

31. How comfortable are you flying in an aircraft that is autonomous – e.g., the aircraft is capable of flight and navigation with minimal human interaction?
    - Extremely comfortable
    - Somewhat comfortable
    - Neither comfortable nor uncomfortable
    - Somewhat uncomfortable
    - Extremely uncomfortable

32. How strongly do you feel about this statement? "Weather conditions would have a significant impact on my decision to use air transportation."
    - Strongly agree.
    - Somewhat agree.
    - Neither agree nor disagree
    - Agree
    - Disagree
    - Strongly disagree.

Section 2 – Regional Air Mobility (RAM) Description

Please use the following for all questions regarding Regional Air Mobility (RAM).

Description of RAM – Regional Air Mobility (RAM) is a new mode of transportation that provides a connection between neighboring metropolitan areas using smaller, local airports that may already exist near neighborhoods, cities, and towns. RAM may employ electric, hybrid, or conventionally fueled aircraft. These aircraft may be piloted, remotely piloted, or fully autonomous. RAM would enable you to either take a scheduled flight (similar to using a bus or metro system) or an on-demand flight (similar to other on-demand travel services, like Uber or Lyft). RAM flights typically cover distances between 100 and 500 miles.

Survey Questions

33. What would be your primary motivation for using regional air mobility over other forms of transportation?
   - I would arrive at my destination more quickly.
   - Novelty, it would be fun to fly.
   - My arrival time would be more certain.
   - It would be safer than my normal method of travel.
   - In the case of electric aircraft, the trip would be carbon neutral.
   - I would not have to drive myself.
   - I would not use Regional Air Mobility (RAM) services.

34. If you were to use RAM services, would you use them more for scheduled (predetermined arrival/departure times) or on-demand flights (arrival/departures based on passenger needs)?
   - Exclusively for scheduled flights
   - Mostly for scheduled flights
   - Both for scheduled and on-demand flights.
   - Mostly for on-demand flights
   - Exclusively for on-demand flights

35. Assuming RAM provided significant time saving relative to ground transportation and/or conventional forms of air transportation, which would be your preferred method of transportation?
   - Regional Air Mobility (RAM)
   - Conventional air transportation
   - Driving (personal vehicle)
   - Carpooling and/or Ridesharing
   - Public Transportation (bus and/or light rail)
   - Other (Please specify)

36. How much time would you need to save in order to consider using Regional Air Mobility (RAM) over more conventional air transport?
   - More than 15 minutes
   - More than 30 minutes
   - More than 1 hour
   - More than 4 hours
   - Saving time would not influence my decision.

37. If using Regional Air Mobility (RAM) services, would you be more likely to use RAM for business or personal (recreation/leisure) travel?
   - I would use RAM services exclusively for business travel.
   - I would use RAM services mostly for business travel.

- I would use RAM services for both business and personal travel.
- I would use RAM services mostly for personal travel.
- I would use RAM services exclusively for personal travel.

38. If your employer paid for you to use Regional Air Mobility (RAM) services for business travel, would you be more likely to use them?
    - Yes
    - Maybe
    - No

39. If you were personally paying for your Regional Air Mobility (RAM) trip, what would you be willing to pay (per passenger) if flying could save you travel time?
    - $50 - $100
    - $100 - $150
    - $150 - $200
    - $200 - $250
    - Greater than $250
    - I would not be willing to pay for Regional Air Mobility (RAM) services to save time.

40. Assuming that you booked a Regional Air Mobility (RAM) flight, how many passengers would you be willing to share your flight with?
    - 1 – 4 people
    - 5 – 8 people
    - 9 – 12 people
    - 13 – 16 people
    - 17 – 20 people

41. For Regional Air Mobility (RAM) flight services, would your willingness to fly be impacted by the aircraft's means of propulsion – e.g., electric motors, hybrid, or conventional fossil fuels?
    - More willing to fly if electric.
    - More willing to fly if hybrid.
    - More willing to fly if fossil fuels are used.
    - Neutral – Willingness to fly not impacted.

42. For Regional Air Mobility (RAM), how would your willingness to fly be impacted by the aircraft's level of autonomy?
    - More willing to fly if the aircraft is operated by a human pilot onboard
    - More willing to fly if the aircraft is operated by a human pilot, with the pilot located in a remote location – e.g., not onboard the aircraft.
    - More willing to fly if the aircraft is operated autonomously – e.g., computerized systems perform key flight and navigation functions without human intervention.
    - Neutral – Willingness to fly not impacted.

Section 3 – Urban Air Mobility (UAM); Air Taxi Description

Please use the following for all questions regarding Urban Air Mobility (UAM) and air taxi services.

Description of Air Taxi – An air taxi carries 2-5 passengers for a flight distance of up to 80 miles. It flies at lower altitudes within urban, suburban, and regional areas. Instead of requiring a runway,

an air taxi can take off and land on a helipad or similar infrastructure. As part of an air taxi package, a ridesharing service similar to Uber and Lyft would bring you to and from the air taxi pick-up and drop-off location. Air taxis would be operated by pilots in the short-term and would transition to semiautonomous or autonomous technology in the long term when the technology is ready.

Survey Questions

43. If Urban Air Mobility (UAM) and/or air taxi services were available to you, what would be your primary motivation for using those services?
   - I would arrive at my destination more quickly.
   - Novelty: it would be fun to fly
   - My arrival time would be more certain.
   - It would be safer than my normal means of travel.
   - The trip would be more carbon neutral.
   - I would be chauffeured and not have to drive myself.
   - I would not use UAM and/or air taxi services.

44. In which times during the week is saving time most important to you? (Choose all that apply)
   - Weekday morning (Monday – Friday)
   - Weekday afternoon (Monday – Friday)
   - Weekday evening (Monday – Friday)
   - Weekend morning (Saturday – Sunday)
   - Weekend afternoon (Saturday – Sunday)
   - Weekend evening (Saturday – Sunday)
   - Other – Please explain.

45. What would be your most likely reason(s) for using an air taxi service?
   - Travel for business
   - Personal travel (leisure/recreational travel)
   - Business and personal travel
   - Other – Please explain.

46. How likely would you be to use an air taxi service for business travel if the expenses were covered by your employer?
   - Extremely likely
   - Somewhat Likely
   - Neither likely nor unlikely
   - Somewhat unlikely
   - Extremely unlikely

47. If you were personally paying for an air taxi trip, what amount would you be willing to pay (per passenger) if using an air taxi could potentially save you time?
   - $25 - $50
   - $50 - $75
   - $75 - $100
   - $100 - $150
   - Greater than $150
   - I would not be willing to pay for an air taxi to save time.

48. Would you be willing to spend more on an air taxi flight during a specific day of the week?
   - Weekday morning (Monday – Friday)

- Weekday afternoon (Monday – Friday)
- Weekday evening (Monday – Friday)
- Weekend morning (Saturday – Sunday)
- Weekend afternoon (Saturday – Sunday)
- Weekend evening (Saturday – Sunday)
- Other – Please explain.
- I would not be willing to pay more for an air taxi.

49. How many passengers are you willing to share an air taxi flight with?
- 0 people (only you onboard)
- 1 person
- 2 people
- 3 people
- 4 people

50. How would your willingness to use an air taxi be impacted by the aircraft's means of propulsion – e.g., electric motors, hybrid, or conventional fossil fuels?
- More willing to fly if electric.
- More willing to fly if hybrid.
- More willing to fly if conventional fuel.
- Neutral – Willingness to fly not impacted.

51. How would your willingness to use an air taxi be impacted by the aircraft's level of autonomy?
- More willing to fly if the aircraft was operated by a human pilot onboard
- More willing to fly if the aircraft is operated by a human pilot, with the pilot located in a remote location – e.g., not onboard the aircraft.
- More willing to fly if the aircraft is operated autonomously – e.g., computerized systems perform key flight and navigation functions without human intervention.
- Neutral – Willingness to fly not impacted.

52. How strongly do you agree with this statement? "Noise pollution from air taxi traffic is a concern for me."
- Strongly agree.
- Somewhat agree.
- Neither agree nor disagree
- Somewhat disagree.
- Strongly disagree.