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MEETING SUMMARY

RE: Taxiway and Apron Network
Technical Advisory Committee Meeting #5

Date of Meeting: December 2, 2020

Project Manager: Kaci Nowicki

Time of Meeting: 10:00 a.m.

SEH No.: 150733 16.00

Location of Meeting: Virtual Meeting

Attendees:	Tom Werner – DAA	Gina Mitchell – FAA
	Joelle Bodin – DAA	Jerilee Buggert – FAA Air Traffic Control
	Mark Papko – DAA	Joe Solberg – 148th Air National Guard
	Natalie Peterson – DAA	Kevin Carlson – MnDOT
	Steve Wabrowetz – DAA	Lis Hendrickson – Fly Duluth
	Kaci Nowicki – SEH	Mark Wasserbauer – 148th Air National Guard
	Andy Peek – FAA	Matthew Stewart – SEH
	Chad Ronchetti – City of Duluth	Mike Magni – Monaco Air
	Chris Blomquist – 148 th Air National Guard	Scott Sannes – SEH
	Don Monaco – Monaco Air	Shawn McMahon – SEH
	Eric Monson – LSH	Scott Mullins – Military Affairs

The following summarizes the Taxiway and Apron Technical Advisory Committee (TAC) meeting that was held via Zoom online on December 2, 2020. The meeting utilized voice, video, screen share (presentation), MentiMeter (written feedback/polling) and an online survey to gain feedback from TAC Members as well as general discussions. The summary references slide numbers from the meeting presentation. The presentation slides are available on the [project website](#). Responses from MentiMeter and follow-up survey also included at the end of this summary.

Meeting Goals:

- Understand stakeholder views on highest and best use of certain areas
- Identify preferred layout options and get stakeholder feedback on pros and cons of layout options
- Identify flexible alternatives that can be adapted to potential future scenarios/needs

I. Taxiway Network Needs and Taxiway Design Standards (See Slides 4-7)

- A. A review of taxiway design requirements was discussed with the group. Additionally, the proposed taxiway design throughout the airport was presented to the group.
- B. It was noted that taxiway alternatives are still being finalized with the Taxiway TAC group and stakeholder feedback continues to be considered.

II. Preliminary Air Traffic Control Tower Siting Requirements and Analysis (See Slides 8-13)

- A. This TAC meeting combined both the Air Traffic Control Tower and Taxiway/Apron TACs to share stakeholder feedback and present preliminary apron and building area layouts. A brief overview of the Air Traffic Control tower siting analysis was also presented to the group.

- B. Andy Peek from the FAA shared that the airport should focus on identifying the best use for each area from an aeronautical perspective. While the FAA will ultimately choose the tower location, the airport should think about what the needs are in each area and what the best use is, document it in the plan, and plan for that at this time.

III. **Parking and Apron Needs (See Slides 14-21)**

- A. Preliminary parking and apron needs were presented to the group. These needs were developed using the aviation forecast, hangar waiting list, current and future based aircraft and initial stakeholder input.
 - 1. Mike Magni, Monaco Air, asked about the future Runway Visibility Zone (RVZ) based on a future runway 3/21 extension and if the helicopter parking on the existing Tower Ramp could remain. *It was shared with the group that the RVZ on the tower ramp would not move based on any potential future Runway 3/21 extensions and that the parking locations must be removed in both the existing and future conditions.*
 - 2. Mike M., Monaco Air, shared that 25 parking space feels right but can greatly differ depending on the day and during peak times. The midfield ramp is the only ramp outside of the 148th's Ramp that can handle larger aircraft
 - a. Parking varies depending on the size of aircraft
 - b. Mike also mentioned DLH is a designated diversion airport
 - 3. Don Monaco, Monaco Air, said that parking areas should be identified, and that tie-downs need to estimate the size of aircraft which may not accurately represent the needed area.
 - 4. A mentimeter question was asked about other considerations while developing these alternatives. See mentimeter results attached to this summary.

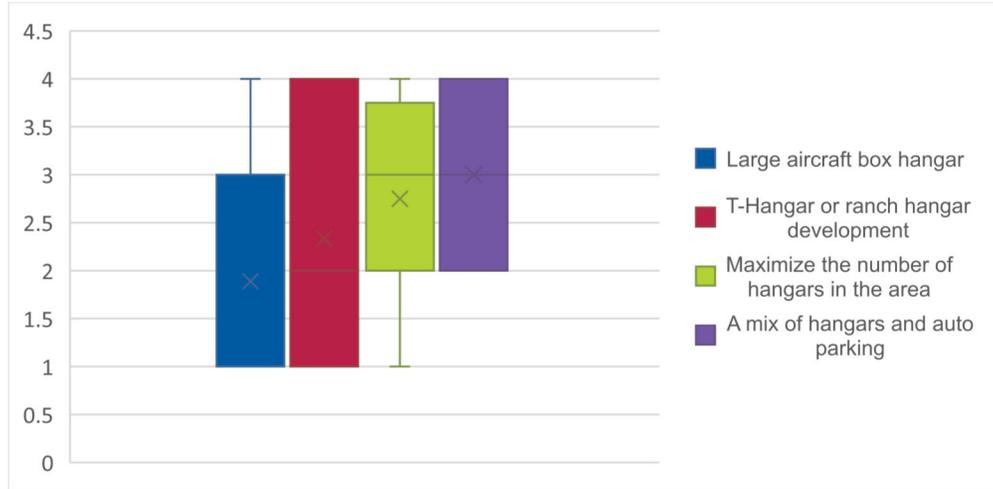
IV. **Building Area and Apron Layout Alternatives (See Slides 23-31)**

- A. Initial apron parking layouts were presented to the group using forecast data and preliminary stakeholder feedback. It was noted that these alternatives are not final and represent different configurations that could potentially be laid out at the airport. It was also noted that whatever ultimately ends up on the ALP could be altered based off of future needs and development opportunities that arise.
- B. Below are additional comments received from meeting participants about the building area and apron layouts presented to the group
 - 1. Avoid north facing hangars – The airport would prefer east and west hangars
 - 2. Several stakeholders felt the Air Traffic Control Tower should not be built in the existing location
 - 3. A concern was raised about the helicopter area being segregated east of Runway 3/21 and that helicopters still utilize other areas and businesses on the airport. *It was noted that helicopters would still be able to go to other areas at the airport as they do today.*
 - 4. It was suggested that the area around the existing tower (Tower Ramp) should be more overflow parking
 - 5. Nooks and crannies between SRE and Monaco could pose challenges with snow removal
 - 6. Snow storage was a concern. Additional follow-up with DAA staff was conducted after the meeting to document snow storage needs.

V. **Online Survey Results**

The following survey questions were sent to meeting participants after the meeting to obtain additional feedback on development areas and the best use of each area. Thirteen individuals began the survey and 11 completed the survey. The questions and results are summarized below.

A. Question 1: Rank the redevelopment use options for the Hangar 101 area in your order of preference

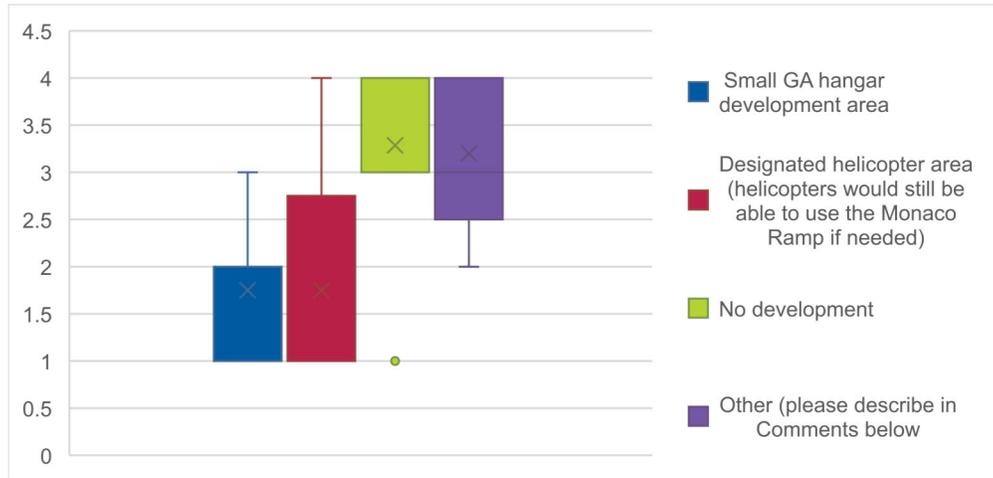


Item	Overall Rank	Rank Distribution	Score	No. of Rankings
Large aircraft box hangar	1		28	9
T-Hangar or ranch hangar development	2		20	7
A mix of hangars and auto parking	3		18	9
Maximize the number of hangars in the area	4		18	8

Lowest Rank Highest Rank

1. No comments were provided about the redevelopment use of Hangar 101.

B. Question 2: Rank the potential uses of the area east of Runway 3/21 in your order of preference

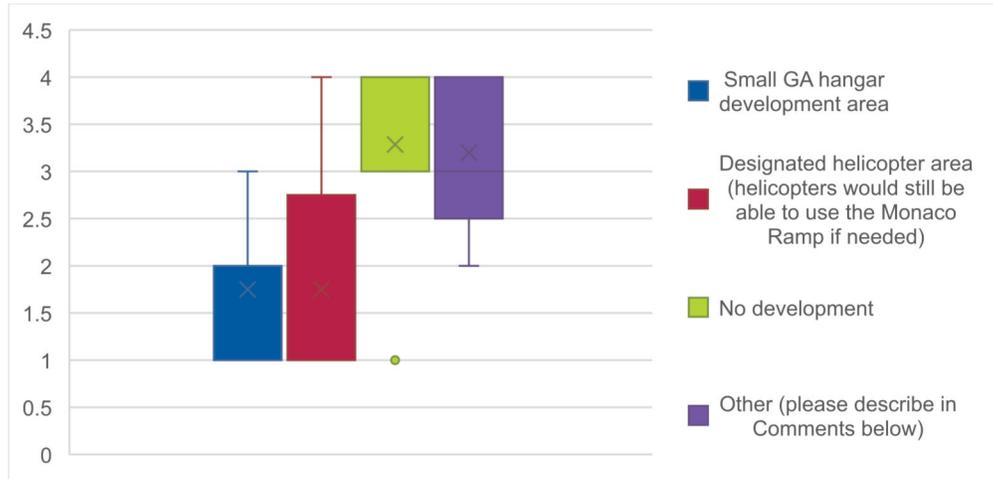


Item	Overall Rank	Rank Distribution	Score	No. of Rankings
Small GA hangar development area	1		26	8
Designated helicopter area (helicopters would still be able to use the Monaco Ramp if needed)	2		26	8
No development	3		12	7
Other (please describe in Comments below)	4		9	5

Lowest Rank Highest Rank

1. Comments
 - a. This location is well suited to a designated helicopter business, especially if operating a flight school with high activity numbers and student pilots. Transient helicopters requiring full FBO services, including fuel, hangars, concierge services, etc. would still operate off the Monaco ramp.
 - b. Aviation museum or other aviation attraction
 - c. South side development for companies who are flowing local customers through their doors coming from Duluth. Helicopter Operations, aviation museum etc.
 - d. Transient aircraft parking and hangars.

C. Question 3: Rank the best use of the North Business Development Area (NBDA) in your order of preference

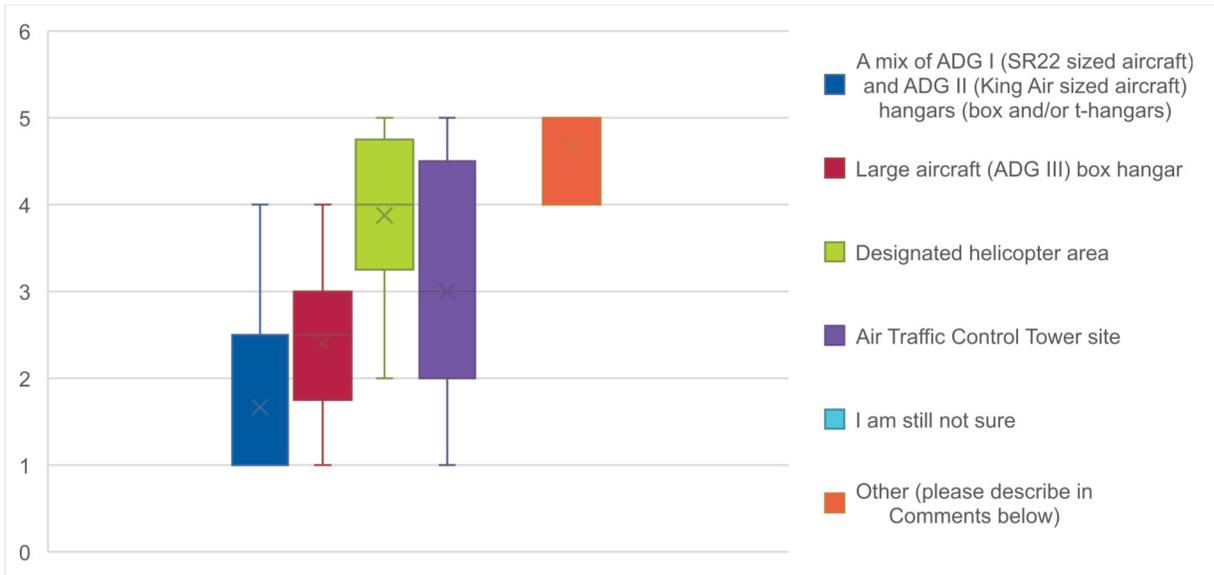


Item	Overall Rank	Rank Distribution	Score	No. of Rankings
Helicopter use	1		23	11
Large box hangars (private or mixed use). A height restriction of approximately 75' would be in place on the western edge of the apron	2		21	9
Other (please describe in Comments below)	3		16	7

Lowest Rank | Highest Rank

1. Comments
 - a. The NBDA, with its close proximity to the MRO facility and the 148th, would ideally be suited to aviation businesses requiring mixed use hangars and buildings.
 - b. Both uses seem appropriate; recommend preserving opportunity for future needs of large aircraft.
 - c. I like the idea of separating helicopter use, but also preserving an area for large aircraft user needs.
 - d. More businesses that don't have a heavy local customer flow.
 - e. Small hangars for airplanes and helicopters.
 - f. SRE Building
 - g. Additional FBO

D. Question 4: Rank the best use of the area between the SRE and Monaco (assuming adequate snow storage area is maintained for safe winter operations) in your order of preference:



Item	Overall Rank	Rank Distribution	Score	No. of Rankings
A mix of ADG I (SR22 sized aircraft) and ADG II (King Air sized aircraft) hangars (box and/or t-hangars)	1		39	9
Large aircraft (ADG III) box hangar	2		36	10
Air Traffic Control Tower site	3		27	9
Designated helicopter area	4		17	8
Other (please describe in Comments below)	5		4	3

Lowest Rank Highest Rank

1. Comments
 - a. A designated helicopter area, presumably including a high activity flight school, would not be a good fit between two high concentration, fixed wing ramps with high ground movement activity.
 - b. Air Traffic Control Tower at the southern point of the box to incorporate smaller hangars in front
 - c. Transient aircraft parking and hangars.

E. Question 5: If the taxilane connector between Monaco and the SRE was not designed to accommodate aircraft parking, would that...

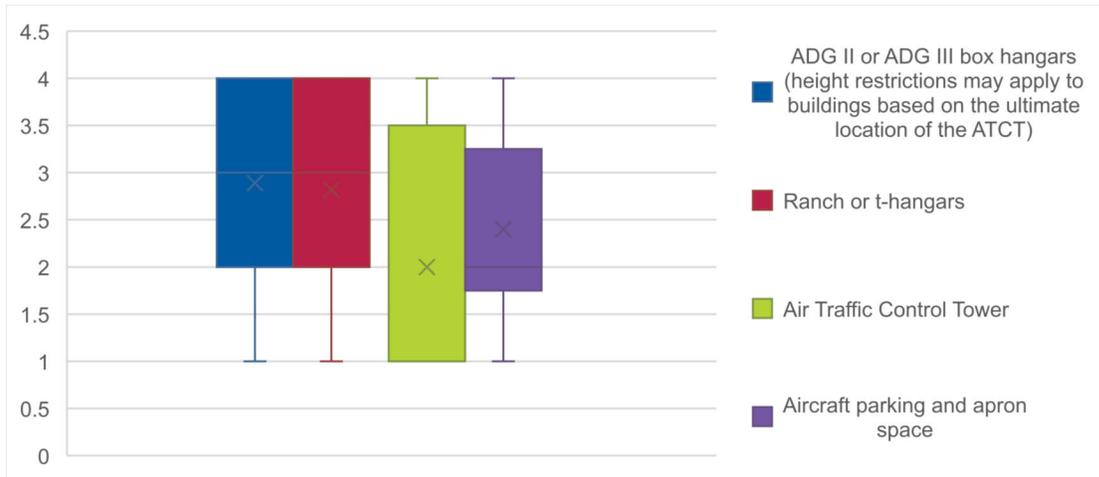


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Other (please describe in Comments below)	5		4	3

Lowest Rank | Highest Rank

1. Comments
 - a. Not having the flexibility to operate this area for both overflow parking from the two adjoining ramps and movement of large aircraft transiting this area would have a negative impact to operations of the two adjoining ramps.
 - b. This area is where all our heavy equipment moves in and out of the SRE building. We shouldn't have to be concerned with aircraft parked in this area, especially during ice surface conditions.
 - c. I don't have a good enough understanding of how this area is used and the flexibility necessary to accommodate needs.

F. Question 6: Rank the best use of the Tower Ramp in your order of preference



Item	Overall Rank	Rank Distribution	Score	No. of Rankings
Air Traffic Control Tower	1		27	9
Aircraft parking and apron space	2		26	10
Ranch or t-hangars	3		24	11
ADG II or ADG III box hangars (height restrictions may apply to buildings based on the ultimate location of the ATCT)	4		19	9

Low est Rank High est Rank

1. Comments
 - a. Parking restrictions on the tower ramp would preclude this area supporting large box hangars. Additional ramp area could be an operational problem as it connects two operating ramps with 90-degree offsets. ATC Tower is probably best fit given sight line restrictions on tower ramp between two runways.
 - b. This area seems like it should be preserved for the highest and best use. Depending on the use proposed, I question whether a ADG III taxiway parallel to Charlie is necessary (i.e. under what condition would aircraft use the TXL to go from the FedEx area up the TXL to somewhere else?) Could Charlie provide this connectivity? If so, would this free up the area for an alternative use (i.e. snow storage). An ADG III TXL requires a lot of pavement and I'm wondering what trip purpose this TXL would serve.

G. Additional Survey Comments:

1. All TAC members were sent a link for a follow-up online survey to gain feedback on what stakeholders felt was the preferred use of developable and re-developable areas. Comments provided by stakeholders are listed below.
 - a. Thank you for reaching out to the tenants and users of the airport for feedback on Master Planning proposals.
 - b. I recommend figuring out what areas should be preserved for specific uses that may develop over time vs. those areas that could be flexible based on market demands. For example, it might make sense to hold a parcel as undevelopable until a couple hangars are at the end of their useful life so the area can be comprehensively redeveloped in a way that makes the most sense. In that scenario, the area could maybe be used for snow storage or some alternative interim use.
 - c. You have done a very good job of getting feedback from everyone.

SEH believes that this document accurately reflects the business transacted during the meeting. If any attendee believes that there are any inconsistencies, omissions or errors in the minutes, they should notify the writer at once. Unless objections are raised within seven (7) days, we will consider this account accurate and acceptable to all.

If there are errors contained in this document, or if relevant information has been omitted, please contact Kaci Nowicki at knowicki@sehinc.com.

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Are there any other building area and apron needs that should be considered?

perimeter road
cargo expansion
helicopter expansion
helicopter future needs
designated vehicle
hot fuel location
service road security types



What are some of the things you like best in the various options?

GA hangar development west of Monaco and east of SRE

I like the larger footprint for the Tower environment

additional space for helicopters to allow for improved operations



What are some things you dislike in the various options?

ATC location in 1 A

I dislike the helicopter pad in front of the tower option

the tower on the south side just seems to limit too much

Build the tower on the current SRE site and build a new SRE facility at the North Business Development Ramp or west of the old DRMO facility



Are there any needs that aren't being met in these options?



Rank the best use of the area between Monaco and the SRE

