AGENDA ITEM: 14

TRUCKEE TAHOE AIRPORT DISTRICT

BOARD OF DIRECTOR STAFF REPORT

AGENDA TITLE: **Seasonal Control Tower Update**

MEETING DATE: **January 25, 2017**

PREPARED BY: **Hardy S. Bullock Director of Aviation & Community Services**

RECOMMENDED ACTION: No action required, advisory report of progress.

DISCUSSION: At the February 2, 2016 Board of Directors annual offsite workshop, the Board discussed the potential benefits and unintended consequences of installing a temporary seasonal, non-federally funded airport control tower (tower). Staff presented the following information:

- Request for Information closed January 5, 2016. Four vendors replied with cost and services to provide seasonal temporary tower facilities and staffing at KTRK.
- Rough order of magnitude cost ranges from $400K – 600K for tower service from MAY 1 – OCT 31. The FY2017 Budget includes $500,000.
- Four days at Air Traffic Control Association meetings, East Hampton Airport, and discussions with operators, tower providers, and FAA representatives resulted in the following findings:
    - No data indicates additional operations from tower.
    - Tower enhances safety.
    - Tower may or may not enhance capacity.
    - Tower is responsible for directing pilots to use Noise Abatement Procedures and local procedures based on Memorandum of Understanding with District.
    - Oakland Center will work directly with tower to place aircraft as directed by airport congruent with safety.
    - Utilization of a tower is the decision of the airport operator not the FAA.

- Mixed aeronautical uses benefit from the control, oversight, and direction of a tower controller although some operations may see greater restriction and reduced tempo.

Following a comprehensive discussion by the Board, staff was directed to develop a complement of information to support an informed decision regarding a tower. This information included pricing, availability, and a detailed description of deliverables achieved through the performance of a tower service contract in the inception year (2016) and subsequent years.

At the March 23, 2016 Board meeting, Staff presented comprehensive information regarding a tower. The Board authorized Staff to implement a tower for operation within the 2017 summer operating period. Additional discussions regarding the tower occurred at the budget workshop and the Board meeting where the final budget was adopted.

During the summer of 2016, Staff and the selected services provider, Midwest ATC conducted site survey activities and completed the Safety Risk Management Determination which outlined the proper airfield site placement and any potential risks associated with the final site selection. During the fall of 2016 Staff and Midwest ATC completed selection and sourcing of the supporting structures, final site diagrams, and FAA authorization. Additional meetings with Oakland Center, the FAA controlling authority for aircraft in flight at Truckee Tahoe Airport, yielded supportive results.

The next steps for the project include:

1. Meeting with Nevada County Building Department and the Nevada County Planning Department for permits and authorization of construction of a temporary aerial structure.
2. Receive engineering plans, specifications for a temporary tower.
3. Saw cut and pour reinforced concrete for tower pad.
4. Run electrical service.
5. Run communication service.
6. Configure secured network infrastructure for flight tracking display.
7. Configure certified Automated Weather Observation System.
8. Secure containers, paint and crane in place.
9. Complete external stairs.
10. Develop Letter of Agreement between Oakland Center and KTRK.
11. Develop Letter of Agreement between KTRK and Midwest ATC for community annoyance reduction activity and protocol.
12. Develop Letter of Agreement between KTRK and Midwest ATC outlining the movement control area.
13. Implement the Temporary Seasonal Control Tower Outreach Plan to the local community and the wider airport/pilot community.
14. Amend the Airport Facility Directory and Airport 5010 Date package.
15. Apply for the Federal Rulemaking to establish a Class D Surface Area at KTRK.
16. Receive Initial Certification by the FAA.

Based on the current timeline for installation, some of the products, services, and deliverables of an airport control tower may not be available to the District until year two or even year three of the contract. Listed below in (blue) are some of the general responsibilities of a control tower. These apply to any installation scenario and will be present in all deployment timelines. Below in (green) is a list of deliverables associated with a year one (2017), year two (2018), and year three (2019) tower deployment.

General Responsibilities of an Airport Traffic Control Tower

Advisory Circular 90-938

Maintain familiarity with the positions, equipment, and duties required to operate a Non-Federal Airport Control Tower (NFCT).

Ensure operational continuity during the transfer of position responsibility.

Issue pertinent weather and airport information via SIGMETs, AIRMETs, PIREPS, and NOTAMs, etc.

Maintain training records for each air traffic control specialist in the facility.

Ensure that air traffic control services are provided in a safe, orderly, and efficient manner.

Ensure that each air traffic control specialist in the NFCT manager's employ is properly qualified and current in the application of air traffic control services.

Maintain a comprehensive pilot education program that includes pilot/controller forums to discuss and or clarify local procedures and airspace matters.

Ensure that voice recorders and other essential equipment are checked for suitable operation at the beginning of each shift.

Ensure that voice recorder tapes are retained for a minimum of 45 days, excluding tapes containing information pertaining to accidents/incidents. Tapes pertinent to accidents or incidents should be retained as detailed in FAA Order 8020.16, Chapter 7, Paragraph 101.

Ensure a daily record of air traffic operations log is maintained in the operational quarters.

EMERGENCY OPERATIONS AND HAZARDOUS CONDITIONS.

To ensure that emergency operations (for example accidents/incidents) data are documented, it is essential for NFCT air traffic managers to record and report all accidents/incidents in the same manner as would FAA-operated ATCTs (in accordance with FAA Order 8020.16 and 8020.11). The purpose of such reports and records is to provide essential information for follow-up investigations and help in the development of new procedures and regulations. The NFCT air traffic managers, or a designated representative, upon becoming aware of conditions that are hazardous to a safe operation, should immediately notify airport management to restrict or suspend operations as necessary until the necessary corrections are made.

Year One (2017) Deliverable of a Non-Federal Airport Control Tower (NFCT)

Tower Services available from 6:30 AM to 8 PM or at the discretion of the District.

Positive tower control of aircraft course and altitude within 4.3 nautical miles (5 SM) of the airport.

Separation of ground traffic up to the non-movement area, roughly the ramp area and hangar rows.

Separation of specialized aviation services such as skydiving, glider, and flight training activity.

Separation of ground vehicles and aircraft in the movement areas such as taxiways and runways.

Support of curfew and calm wind runway utilization.

Support of policy directives such as no touch and gos, no repeat operations, no practice approaches.

Issuance/clearance delivery of Visual Flight Rules and Instrument Flight Rules arrival and departure procedures.

Enhance safety during periods of airfield construction.

Year Two (2018) Deliverable of a Non-Federal Airport Control Tower (NFCT)

Memorandum of Agreement with Oakland Center for Standard Instrument Departure and Standard Terminal Arrival Routes.

Preferred Runway Program.

Visual Flight Procedures or enhanced use of special procedures to shift traffic toward areas of low residential density. *May require enhanced surveillance*

Year Three (2019) Deliverable of a Non-Federal Airport Control Tower (NFCT)

Visual Flight Procedures.

Next Gen products such as required or performance based navigational procedures.

Surveillance products such as ADSB separation, enhanced clearance delivery and airspace efficiency/ optimization.

FISCAL IMPACT: The cost associated with the deployment of an airport control tower is significant. Staff estimates the following cost:

Year One Cost Estimates	
Tower rental, mobilization, demobilization	$148,500
Tower operation from June 15, 2016 to September 15, 2016	$234,500
CONTRACTOR SUBTOTAL	$383,000
Design, Engineering, infrastructure	$25,000
Consultation legal, aviation	$10,000
IT Engineering and surveillance	$6,000
Public outreach printing, advertising	$1,000
Pilot outreach printing, advertising	$1,500
Unknown (2.5%)	$10,663
DISTRICT DIRECT COST SUBTOTAL	$54,163
TOTAL	**$437,163**

PUBLIC COMMUNICATIONS: Considerable public communication is necessary for successful implementation. First and Foremost would be the pilot data publications required to inform the community of pilot users. These include the Airport Facility Directory FAA 5010, multiple data aggregator sites such as AirNav, etc. Additional channels include direct meetings with local pilots and special meetings with routine users such as Surf Air, Net Jets, etc. The local community will be informed through our website, e-blast, Sierra Sun, and KTKE Radio presence. The attached timeline outlines the communication effort that is currently underway.

ATTACHMENTS:

1. Timeline
2. Photos
3. Communications Timeline (Marc Lamb)