



COUNTY OF HUMBOLDT

For the meeting of: 8/30/2022

File #: 22-1044

To: Board of Supervisors

From: Aviation

Agenda Section: Consent

SUBJECT:

Purchase of one Cyclone Ultra-High Pressure Rubber and Paint Removal System

RECOMMENDATION(S):

That the Board of Supervisors:

1. Authorize the purchase of one Cyclone Technologies, LLC's Ultra-High Pressure Rubber and Paint Removal System

SOURCE OF FUNDING:

Aviation Enterprise Fund (3530381)

DISCUSSION:

The Humboldt County Department of Aviation operates six county-owned airports that have a cumulative total of seven runway surfaces, nearly 20 supporting taxiways, and multiple aircraft parking aprons.

Airfield pavements are subject to harsh conditions of weather and climate, as well as heavy and repetitive loads from aircraft and other vehicles. These typical service conditions lead to paint fading, chipping, and degrading on the surfaces over time, as well as rubber build up from friction of aircraft wheels upon touchdown. Airport pavement paint markings, and the removal of built-up rubber, are critical to the safety to both commercial and general aviation aircraft. Paint markings are a critical component of airfield visual aids, allowing pilots to gain information during takeoff, landing, and taxiing. As such, it is imperative that regular maintenance activities are performed to preserve the integrity of current markings, and ensure rubber build-up is minimized.

Furthermore, Federal Aviation Administration (FAA) regulations at 14 C.F.R. Part 139, Section 311 indicates that markings, signs, and lighting are to be properly maintained according to FAA methods and procedures. Properly maintaining markings, signs, and lighting is further identified as cleaning, replacing, and repairing any fading, missing, or nonfunctional items, keeping markings clearly visible, and ensuring that each item provides an accurate reference to the user.

A staff review of discrepancies from previous FAA Annual Safety and Certification Inspections determined that from 2013-2019 each annual inspection revealed several discrepancies related to the proper maintenance of FAA required paint markings at ACV Airport. Additionally, a staff review of California Department of Transportation, Division of Aeronautics, annual state permit inspections combined with staff inspections of these facilities, has determined that four of the county's General Aviation airports also require significant paint marking and rubber removal.

Previously, due to the smaller size and frequency of the aircraft operating at ACV, rubber build-up on the runway was not a significant concern and rubber removal requirements were minimal. However, with the increasing size of the commercial aircraft operating at ACV, including the Embraer 175 and Boeing 737 series aircraft, significant rubber deposits are beginning to accumulate. Staff expects that based upon the current aircraft fleet mix and frequency of aircraft operations; rubber removal will be required annually at a minimum on the primary runway at ACV.

Currently the Department of Aviation uses a small mechanical grinder to remove paint markings from small sections of pavement. However, this equipment is not practical to perform the larger jobs which the proposed Cyclone 4006ST is designed to perform. Additionally, the small mechanical grinder it is not designed to perform rubber removal.

Due to the FAA and State DOT, Division of Aeronautics regulatory requirements, the Department of Aviation engaged in competitive process per Purchasing Policy guidelines and received the attached Quote through Cyclone. The attached quote includes federal competitively solicited cooperative pricing through HGACBuy. The quoted Cyclone 4006ST high-pressure rubber and paint removal system includes a 530 gallon corrosion resistant fresh water tank, 600 gallon recovery/dewatering tank that separates liquid from solid with a hydraulic powered dump mechanism, water capacity for 2 hours of operating time, and 3-year factory warranty.

FINANCIAL IMPACT:

The total cost for the purchase of one cyclone ultra-high pressure rubber and paint removal system, accompanying accessories and USE Tax is \$641,857.81. This will be paid for using previously granted Federal Aviation Administration (FAA) CARES Act Funding. Therefore, there is no impact to the General Fund.

STRATEGIC FRAMEWORK:

This action supports your Board's Strategic Framework by providing for and maintaining infrastructure and, managing our resources to ensure sustainability of services.

OTHER AGENCY INVOLVEMENT:

N/A

ALTERNATIVES TO STAFF RECOMMENDATIONS:

The Board could choose not to approve the purchase of one cyclone rubber and paint removal system. However, this alternative is not recommended as it would hinder the Department of Aviation's ability to effectively maintain airport markings and would allow rubber buildup to continue on the county's

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seven runway surfaces.

ATTACHMENTS:

1. Cyclone Quote Number 4006ST 2002
2. HGACBuy Contract Pricing Worksheet

PREVIOUS ACTION/REFERRAL:

Board Order No.: N/A

Meeting of: N/A

File No.: N/A