

# Chehalis-Centralia Airport Master Plan Update









**Brandon Rakes** 

**Airport Director** 

**Leah Whitfield** 

Project Manager

**Justin Heid** 

Assistant Project Manager/Lead Planner







| 1. | What is an Airport Master Plan                      |
|----|---|
| 2. | Your Role as the Technical Advisory Committee (TAC) |
| 3. | Master Plan Schedule                                |
| 4. | Public Involvement Plan                             |
| 5. | Airport Existing Conditions                         |
| 6. | User Survey Results                                 |
| 7. | Airport Issues Roundtable                           |
| 8. | Emerging Aviation                                   |
| 9. | Next Steps  |





# What is an Airport Master Plan?

A master plan's purpose is not to solve the airport's management, operations, or maintenance issues. According to the Federal Aviation Administration (FAA), an airport master plan is...

A comprehensive study of an airport that usually describes the short-, medium-, and long-term development plans to meet future aviation demand.

Follows FAA Advisory Circular 150/5070-6B

- What's Included
  - Inventory
  - Forecast
  - Facility Requirements
  - Alternatives
  - Airport Layout Plan
  - Capital Improvement Plan



# Chehalis-Centralia Airport Master Plan Update



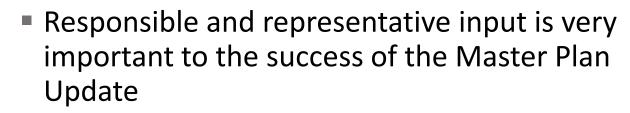
Regular Master Plan Updates are required to continue to be eligible for FAA Grants.

| Fiscal Year | Project Description                            | <b>Grand Total</b> |
|-------------|--|--------------------|
| FY 2005     | Construct Access Road                          | \$142,470          |
| FY 2005     | Construct Taxiway                              | \$457,121          |
| FY 2005     | Rehabilitate Runway                            | \$5,000            |
| FY 2006     | Construct Taxiway                              | \$164,451          |
| FY 2006     | Install Weather Reporting Equipment            | \$132,563          |
| FY 2006     | Rehabilitate Taxiway                           | \$575,957          |
| FY 2008     | Acquire Land For Approaches                    | \$244,586          |
| FY 2009     | Acquire Land For Approaches                    | \$94,695           |
| FY 2010     | Rehabilitate Runway                            | \$35,000           |
| FY 2011     | Acquire Snow Removal Equipment                 | \$75,000           |
| FY 2011     | Install Perimeter Fencing                      | \$84,632           |
| FY 2013     | Construct Snow Removal Equipment Building      | \$85,200           |
| FY 2013     | Rehabilitate Runway                            | \$6,000            |
| FY 2015     | Construct Taxiway                              | \$89,900           |
| FY 2015     | Rehabilitate Apron                             | \$128,485          |
| FY 2016     | Rehabilitate Apron                             | \$940,346          |
| FY 2018     | Reconstruct Taxiway                            | \$2,598,521        |
| FY 2020     | CARES Act Funds                                | \$69,000           |
| FY 2021     | CRRSA Act Funds                                | \$23,000           |
| FY 2021     | Seal Runway Pavement Surface/Pavement Joints   | \$238,790          |
| FY 2021     | Seal Taxilane Pavement Surface/Pavement Joints | \$527,810          |
| FY 2021     | Seal Taxiway Pavement Surface/Pavement Joints  | \$177,777          |
| FY 2022     | General ARPA                                   | \$59,000           |
|             |  | \$6,955,304        |
|             |  |                    |





Your
Role on the
Public Advisory
Committee
(PAC)



- Limited time commitment: 3 meetings
- Review Draft Report and provide feedback with an eye towards your role in the community
- Provide suggestions AT ANY TIME

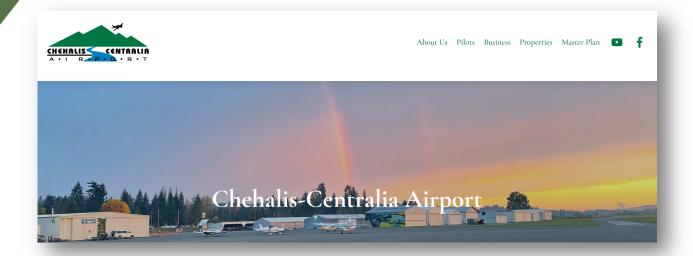




# Chehalis-Centralia Airport Master Plan Update

# Public Involvement Plan

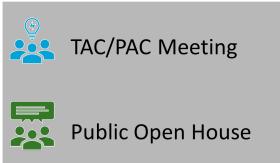
- NEW CLS website www.ChehalisCentraliaAirport.com
  - Master Plan newsletter sign up
- User Survey
- 3 Technical Advisory Committee (TAC) Meetings
- 3 Public Advisory Committee (PAC) Meetings
- 3 Public Open Houses
- Comments accepted throughout
- Feedback from TAC/PAC ongoing

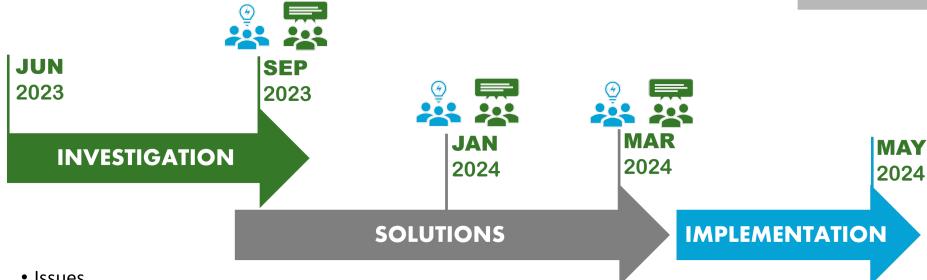




#### **Chehalis-Centralia Airport Master Plan Update**

# Schedule





- Issues
- Airport Inventory
- Aviation Forecasts
- Airport Facility Requirements

- Draft Alternatives
- Alternative Evaluation
- Environmental Review
- Recommended Alternative

- Capital Improvement Program
- Funding
- Airport Layout Plan
- Draft/Final Report



# Chehalis-Centralia Airport Master Plan Update

# Airside Existing Conditions

- Runway: 16/34
  - Medium Intensity Runway Lighting (MIRL)
- Taxiway:
  - **A**: 35'-50' wide reflectors
  - **T-04**: 35' wide reflectors
  - Taxiway Connectors:
    - **A1**: 35' wide reflectors
    - **A2**: 30' wide reflectors
    - **A3**: 35' wide reflectors
    - **A4**: 140′ wide reflectors
    - **A5**: 35′ wide reflectors







#### **Existing Runway Conditions**

|                        | •  |                        |  |
|------------------------|--|------------------------|--|
| ltem                   | Runway 16  | Runway 34              |  |
| Design Group           |  |                        |  |
| Aircraft Approach      | Category B                                       |                        |  |
| Category:              | Approach speed 91 knots but less than 121 knots. |                        |  |
| Airplane Design Group  | Group II   |                        |  |
| All plane Design Group | Tail height 20'-<30'; wingspan 49'-<79'          |                        |  |
| Orientation            | SE   | NW                     |  |
| Length                 | 5,000 feet                                       |                        |  |
| Width                  | 140 feet   |                        |  |
| Surface Type           | Concrete   |                        |  |
| Weight Canacity        | Single/Double Wheel: 30,000 lbs.                 |                        |  |
| Weight Capacity        | Double Tandem: 85,000 lbs.                       |                        |  |
| Lighting               | Medium Intensity Runway Lighting (MIRL)          |                        |  |
| Pavement Markings      | Nonprecision                                     | Basic Visual           |  |
| Traffic Pattern        | Right  | Left                   |  |
| Runway End Identifier  | Yes  | Yes                    |  |
| Lights (REIL)          |  |                        |  |
|                        | 4 Light Precision Approach                       | 2 Box Visual Approach  |  |
| Visual Slope Indicator | Path Indicator (PAPI)                            | Slope Indicator (VASI) |  |

#### **RUNWAY 34**





#### **Chehalis-Centralia Airport Master Plan Update**

#### **Aircraft Design Classification**

| Aircraft Approach Category |   |  |  |
|----------------------------|---|--|--|
| A                          | Approach speed less than 91 knots.                |  |  |
| В                          | Approach speed 91 knots but less than 121 knots.  |  |  |
| С                          | Approach speed 121 knots but less than 141 knots. |  |  |
| D                          | Approach speed 141 knots but less than 166 knots. |  |  |
| E                          | Approach speed 166 knots or more.                 |  |  |

- Runways are designed to accommodate aircraft based on their approach speed and wingspan.
- Combined, these help us determine the geometry of the airfield.

| Airplane Design Group |                             |                            |  |
|-----------------------|-----------------------------|----------------------------|--|
| #                     | Tail Height [ft.(m)]        | Wingspan [ft.(m)]          |  |
| 1                     | <20' (<6m)                  | <49' (<15m)                |  |
| II                    | 20' - <30' (6m - <9m)       | 49' - <79' (15m - <24m)    |  |
| III                   | 30' - <45' (9m - <13.5m)    | 79' - <118' (34m - <36m)   |  |
| IV                    | 45' - <60' (13.5m - <18.5m) | 118' - <171' (36m - <52m)  |  |
| V                     | 60' - <66' (18.5m - <20m)   | 171' - <214' (52m - <65m)  |  |
| VI                    | 66' - <80' (20m - <24.5m)   | 214' - < 262' (65m - <80m) |  |



**A-I** Cessna 182\*



A-II Cessna 208\*



**B-I** Cessna 340\*



B-II King Air\*



B-II Cessna Citation CJ3



C-II Bombardier Challenger 600



C-III Gulfstream V



D-III Gulfstream G650

\*Intended for aircraft weighing 12,5000lbs or less



# Airside Existing Conditions

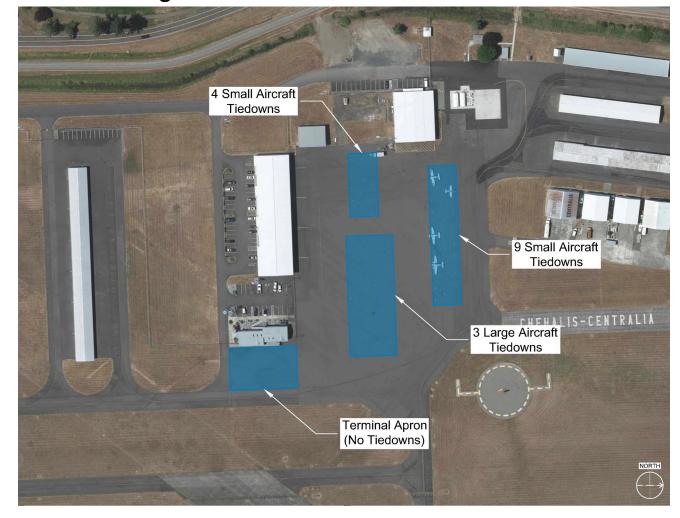
#### Navigational Aids





# Airside Existing Conditions

Aircraft Parking





#### **Buildings**

- A 10 unit T-Hangar
- **B** 4 unit Box Row Hangar
- **C** Terminal/FBO
- **D** Fire Fighting storage building
- E Aircraft Maintenance Hangar
- **F** 5 unit Open T Hangar
- **G** 7 unit T-Hangar
- H 8 unit T-Hangar
- I 8 unit T-Hangar
- J 8 unit Open T-Hangar
- **K** Box Hangar
- L Box hangar
- M Box Hangar
- N Box Hangar
- O Box Hangar
- P 2 unit Box Hangar
- **Q** Box Hangar
- R Box Hangar
- **S** Airport Maintenance Building

# Airside Existing Conditions





# Chehalis-Centralia Airport Master Plan Update

# Landside Existing Conditions

- Landside Airport Businesses
  - Central Aircraft Repair
  - City FBO (Fuel, Hangars)
- Airport Viewing Area
- Trails
- Twin City Town Center









# Landside Existing Conditions



#### Twin City Town Center

| Businesses                            |                                     |                           |  |
|---------------------------------------|-------------------------------------|---------------------------|--|
| Applebee's Grill + Bar                | <b>Interstate Honda of Chehalis</b> | Smoke Depot               |  |
| Armed Forces Career<br>Center         | Jiffy Lube                          | Sonic Drive-In            |  |
| Big 5 Sporting Goods                  | Big 5 Sporting Goods KB Nails       |                           |  |
| Burger King                           | Kobo Teriyaki                       | Subway                    |  |
| Chevron                               | Little Caesars                      | Taco Del Mar              |  |
| <b>Desert Sun Tanning Salon</b>       | Mattress Firm                       | The Home Depot            |  |
| Dollar Tree                           | Maurices                            | T-Mobile                  |  |
| <b>Dutch Bros Coffee</b>              | McDonald's                          | <b>Town Center Dental</b> |  |
| Edward Jones                          | Michaels                            | Town Center Liquor & Wine |  |
| Gamestop                              | Miracle-Ear                         | Uscellular                |  |
| Glint Car Wash                        | O'Reilly Auto Parts                 | Verizon                   |  |
| GNC                                   | Petsense by Tractor Supply          | Walgreens                 |  |
| <b>Grocery Outlet</b>                 | Sally Beauty                        | Walmart                   |  |
| Happy Kids Dentistry and Orthodontics | Security State Bank                 | Wendy's                   |  |
| Harbor Freight Tools                  | Sherwin-Williams Paint Store        | WSECU                     |  |





# Environmental Existing Conditions



#### Environmental Critical Area

- The entire CLS property is within and nearly level with the 100-year floodplain of the Chehalis River
- Airport is protected by a levee





2020



#### **5010 Airport Master Record Data**



| Based Aircraft           | Chehalis-Centralia Airport (CLS) | Field - South Lewis  County Airport (KTDO) | Regional Airport (OLM) | Washington Regional Airport (KLS) |
|--------------------------|----------------------------------|--|------------------------|-----------------------------------|
| Location                 |                                  | 14 nm SE                                   | 18 nm N                | 34 nm S                           |
| Single Engine            | 49                               | 38   | 96                     | 51                                |
| Multi Engine             | 3                                | 0  | 8                      | 6                                 |
| Jet                      | 4                                | 0  | 3                      | 1                                 |
| Helicopter               | 0                                | 2  | 18                     | 1                                 |
| Total                    | 56                               | 40   | 127                    | 59                                |
| <b>Annual Operations</b> |                                  |  |                        |                                   |
| Air Taxi                 | 4,500                            | 0  | 940                    | 1,675                             |
| GA Local                 | 23,000                           | 3,100                                      | 33,272                 | 19,700                            |
| GA Itinerant             | 20,000                           | 5,000                                      | 27,884                 | 18,800                            |
| Military                 | 210                              | 200  | 1,098                  | 685                               |
| Total                    | 47,710                           | 8,300                                      | 63,194                 | 40,860                            |

Ed Carlson Momorial

2020

2019



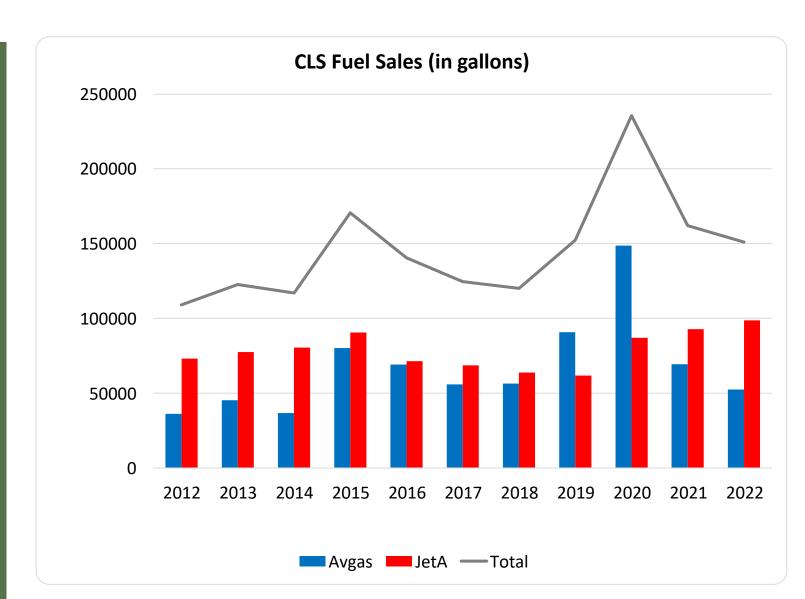
5010 year

2020



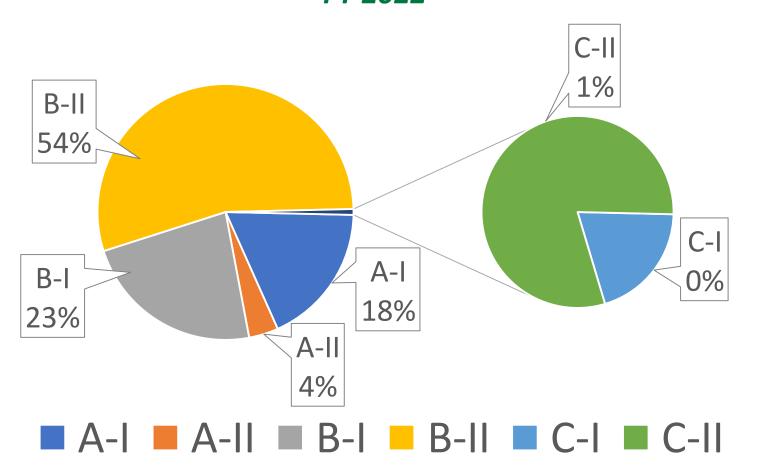


# Fuel Sales History





# Activity by Airport Reference Code (ARC) for Instrument Flight Rules (IFR) Operations FY 2022







# Survey Results

- Need for Additional Hangars
- Navigation Aids (Lighting)
- Improved Instrument Approaches
- Pavement Condition and Strength





# Issues Roundtable Discussion

- What areas should the master plan update address?
- Are there ways the airport can improve?
- What is most important to you?

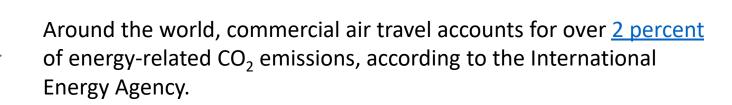


### Future Vision

- What is your vision of the future of the airport?
- What additional service does the airport have?



# Emerging Aviation





Electric



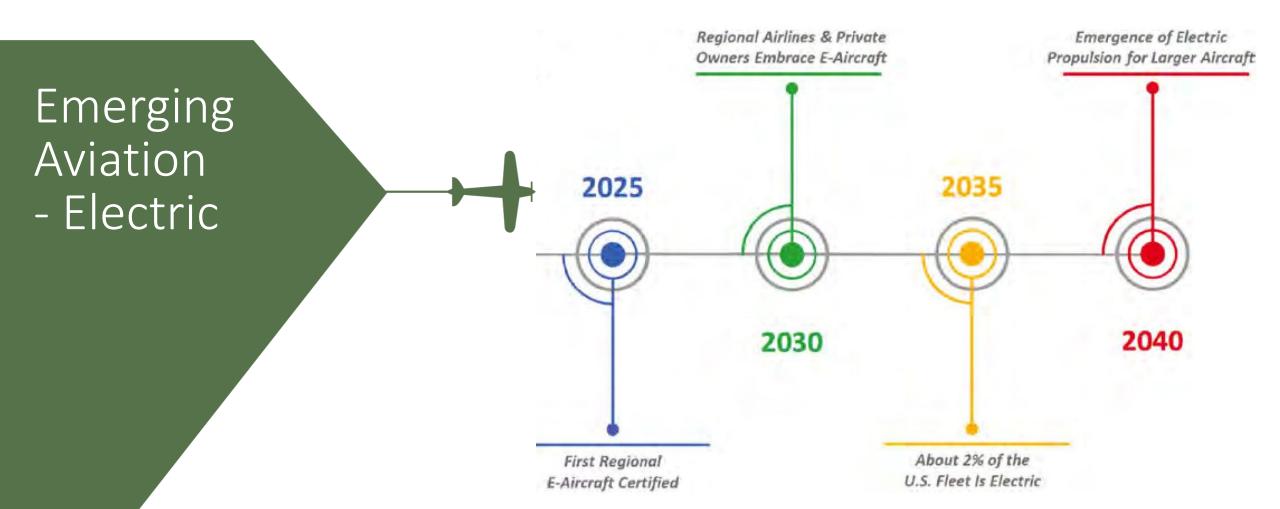
## Emerging Aviation







# Chehalis-Centralia Airport Master Plan Update

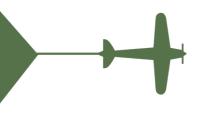


Source: ACRP Research Report 236: *Preparing Your Airport for Electric Aircraft and Hydrogen Technologies* 





# Emerging Aviation - eVTOL











# Emerging Aviation - SAF



#### Created from:

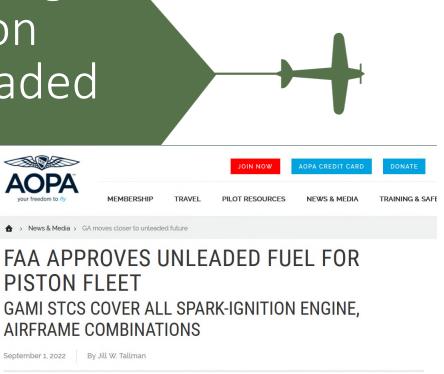
- Waste oils
- Plant and algae material
- Animal fats
- FAA approval for up to 50%
   SAF blend with Jet-A
- SAF is proven, drop-in technology







# Emerging Aviation - Unleaded Fuel



The FAA signed on September 1 supplemental type certificates that allow General Aviation Modifications Inc.'s 100-octane unleaded fuel (G100UL) to be used in every general aviation spark-ignition engine and every airframe powered by those engines. The move was hailed by the industry as a major step in the transition to an unleaded GA future.

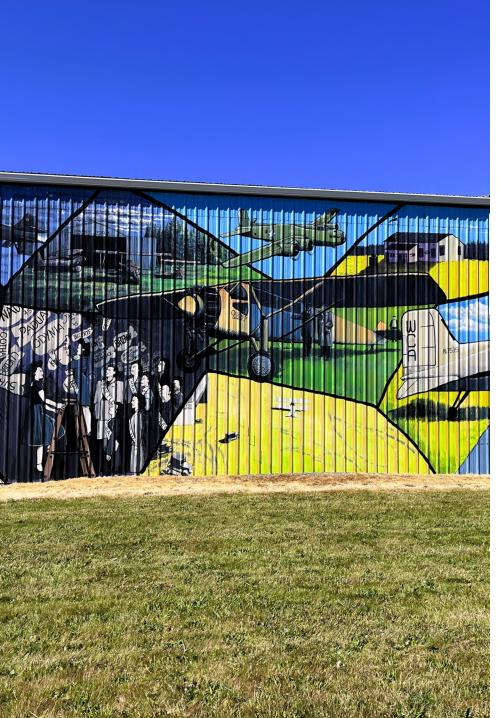
- EAGLE (Eliminate Aviation Gasoline Lead Emissions) – initiative of aviation organizations with goal to meet objective by 2030
- FAA has approved replacement for 100LL subject to:
  - Regulatory requirements
  - Production and distribution
- Alternative is coming, but roll out will be slow





# Emerging Aviation - Hydrogen





# **Next Steps**

Aviation Forecasts

Airport Facility

Requirements

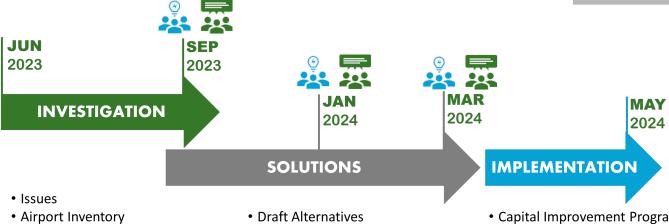


• Capital Improvement Program

Funding

Airport Layout Plan

• Draft/Final Report



• Draft Alternatives

Alternative Evaluation

• Environmental Review

Recommended Alternative



# THANK YOU!

#### Any Comments or Questions?

#### **Contact:**

Leah Whitfield <u>Leah@theaviationplanninggroup.com</u>

Justin@theaviationplanninggroup.com

CLS MPU Email address: masterplan@chehaliscentraliaairport.com

CLS Website: www.chehaliscentraliaairport.com