

## SALINA REGIONAL AIRPORT

AIRPORT OPERATIONS AREA ACCESS (AOA) TRAINING 2024



## INTRODUCTION

This training is taken at the learner's pace, once you have read and understood a slide, click the next slide. If you have any questions, ask your instructor. Take your time, as a test is required at the end.

The PowerPoint section of this training takes around 30-45 minutes, do not rush it.



# STANDARDIZED AOA ACCESS TRAINING PROGRAM

- **≻**Overview
- > The Airport Operations Area
  - ➤ Airport Safety and Hazards
  - ➤ Airport Driving Rules and Regulations
  - ➤ Gate Operations
- Movement Area DriversTraining
  - Airfield Markings

- > Airfield Signs
- ➤ Airport Lighting
- > Radio Communication
- **→** Conclusion
- **≻**Test



### **PURPOSE OF TRAINING**

>To establish a standardized ground movement training program and make airport equipment and vehicle operators aware of the resources available; to maintain the highest possible level of safety within the airport environment.

To ensure that the number of runway incursions are eliminated, to prevent property damage and prevent personal injury.



### **DEFINITIONS**

- >Runway A defined rectangular surface on an airport prepared or suitable for the landing or take off of aircraft.
- **≻Taxiway** A defined path established for the taxiing of >Non-Movement Area – All aircraft from one part of an airport to another.
- ➤ Movement Area Runways, taxiways, and other areas of an airport which are used for taxiing, or hover taxiing, air taxiing, takeoff, and landing of aircraft.
  - areas not controlled by ATCT.





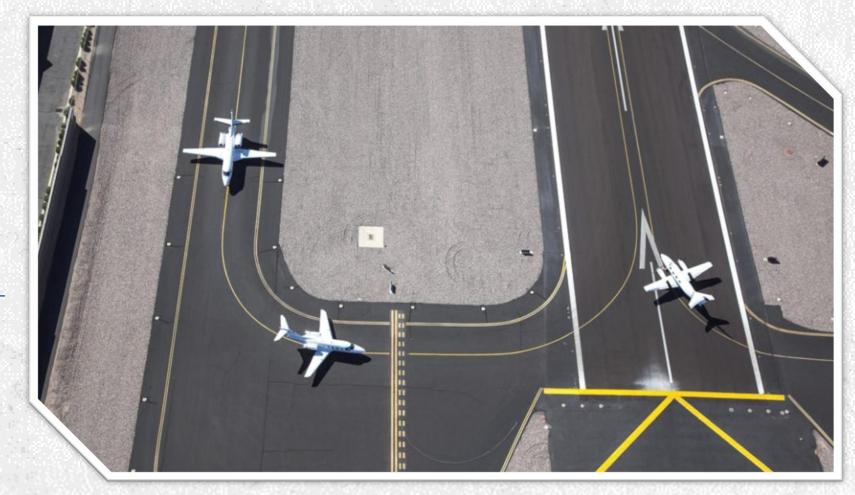
## **ACRONYMS**

- >ATC Air Traffic Control
- ➤ FBO Fixed Based Operator
- ►ILS Instrument Landing System
- ➤ ARFF Aircraft Rescue & Firefighting
- ➤ NAVAID Navigational Aid
- ➤ NOTAM Notices to Air Missions
- ➤ RSA Runway Safety Area
- >KSLN Salina Regional Airport



## **AIRPORT OPERATIONS AREA**

- An area which includes runways, taxiways; air carrier and general aviation ramps; and safety areas.
- The Airport Operations area is further separated into non-movement and movement areas.
- For Salina, this is everything inside the perimeter fence.





# NON-MOVEMENT AND MOVEMENT AREAS

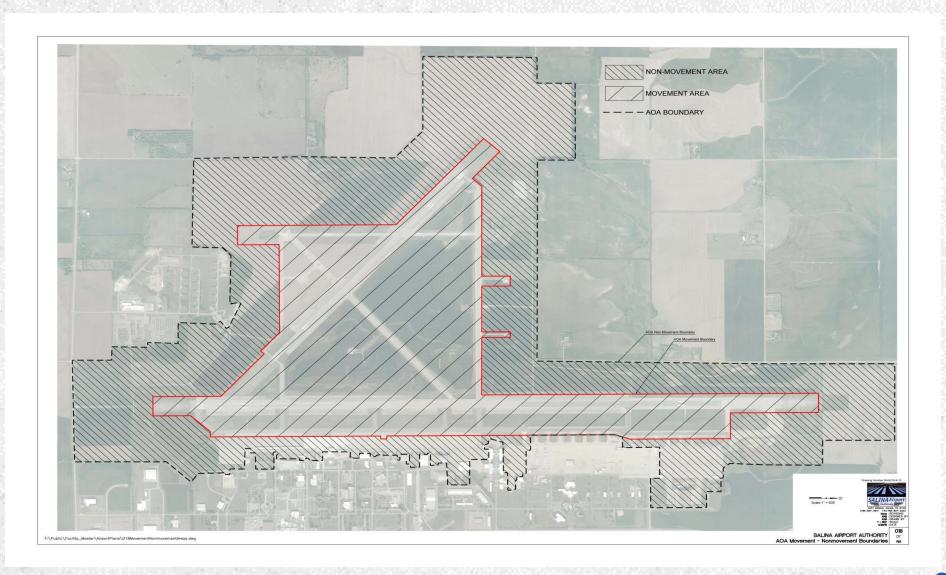
Non-Movement Areas:
Include ramps, aprons,
perimeter roads, and other
areas <u>not</u> under the control of
ATCT.



Movement Areas: Are defined as the runways, taxiways, and other areas of the airport which are utilized for the taxiing, takeoff, and landing of aircraft, which <u>are</u> under the control of ATCT.



## **AIRPORT OPERATIONS AREA AT KSLN**





## WHAT IS A RUNWAY INCURSION?

- > Runway Incursion Any occurrence at an aerodrome > Ensure you have a current airport diagram, remain involving the incorrect presence of an aircraft, vehicle, or person on the protected area of a surface designated for the landing and takeoff of aircraft.
  - > A vehicle/pedestrian deviation occurs when a vehicle or pedestrian has entered the runway safety area without authorization from air traffic control.
  - Causal Factors of Runway Incursions include:
    - > Failure to comply with ATC instructions
    - ➤ Lack of airport familiarity
    - ➤ Nonconformance with standard operating procedures

"heads-up" with your eyes outside, and devote your entire attention to surface navigation per ATC clearance.





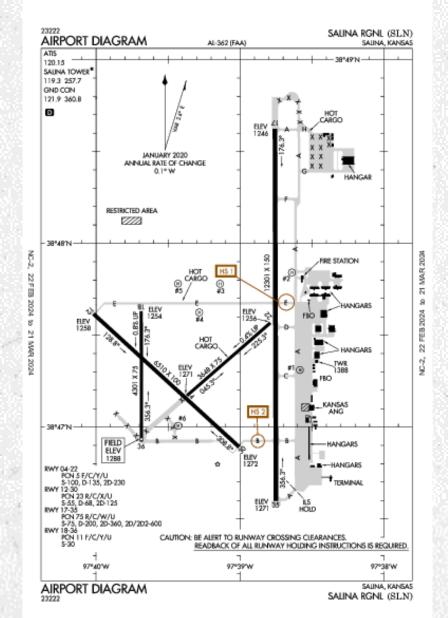
## KNOW HOW TO PREVENT RUNWAY INCURSIONS

- ➤ Understand Signs, Lights, and
  Markings Keep current with
  airport signs, lights, and markings.
  Know what they mean and what
  action to take.
- ➤ Never Assume Do not take clearances for granted, read back all ATC clearances. Look both ways before entering or crossing taxiways and runways.
- ➤ Right of Way When giving way to aircraft, ensure personnel and vehicles are outside of the Runway Safety Area (RSA).
- ➤ Follow Procedures Establish safe procedures for airport operations. Then follow them.



## **AIRPORT DIAGRAM - HOT SPOTS**

- ➢ Hot Spot- A location on an aerodrome movement area with a history of potential risk of collision or runway incursion.
- ➤ Heightened attention by pilots/drivers is necessary.
- ➤ Hot Spot #1- Taxiway Echo crossing 17-35 is active with student pilot midfield departures.
- Hot Spot #2- Use caution when exiting runway 12 onto taxiway Bravo. The hold line for runway 17-35 approaches quickly.





### **PAVEMENT MARKINGS**

- ➤ Markings: Another term ➤ WHITE: Indicates runway the pavement.
- >You will need to be familiar with yellow and white markings:
- for the painted stripes on markings. Except for the Vehicle Driving Lane.
  - >YELLOW: Indicates taxiway markings.



# MOVEMENT/NON-MOVEMENT AREA BOUNDARY

- ➤ Defines the boundary of the movement area and non-movement area. It is marked by a single solid and a single dashed yellow line on the pavement.
- ➤ When you are positioned on the solid line side of the marking, or the non-movement area, ATC clearance is required for you to drive across into the movement area.
- > Hold on the solid line side until given clearance to proceed.





## LOCATION OF MOVEMENT/ NON-MOVEMENT LINE AT KSLN





# VEHICLE DRIVING LANE/SERVICE ROAD

- The vehicle driving lane is the only approved means for driving a vehicle in the non-movement area.
- ➤ Unless critical to mission, always use the designated service road instead of the ramp for driving on the AOA.
- This is the only airport approved system that a driver can safely transition from one end of the ramp to the other with minimal aircraft interference.
- > Speed Limit: 15 miles per hour





# LOCATION OF VEHICLE DRIVING LANE/SERVICE ROAD AT KSLN





## **AIRPORT SAFETY & HAZARDS**





## FOREIGN OBJECT DEBRIS (FOD)

- FOD is any object on the airfield that could cause damage to an aircraft.
- The effects of FOD on maintenance costs can be significant. For example, the cost to repair a FOD damaged engine can easily exceed \$1 million.

Common types of FOD include small and large pieces of breaking pavement, any trash such as plastic, cans, mud, tools, etc.





## FOREIGN OBJECT DEBRIS (FOD)

## **Steps to Eliminate FOD on the Airport:**

#### 1. When you see FOD, pick it up.

• If it is in the movement area or an area that you are not allowed to drive into, contact Airport Operations (785) 342-9217, or ARFF personnel (785) 342-5273.

#### 2. Identify the source of FOD.

 The source could be an open trash container outside the fence that the wind is blowing or a service vehicle that did not secure their materials, or a section of pavement that is spalling.

- 3. Eliminate or correct the source problem.
  - This can be as simple as closing a trash lid, or securing materials.
- 4. Evaluate the correction to ensure that your correction is adequate.
  - This may require follow-up evaluations



# NIGHTTIME OR BAD WEATHER DRIVING

- ➤ Poor weather conditions (snow, fog, rain, etc.) might obscure visual cues, roadway markings, and airport signs.
- Things also look different at night, on your first couple of trips take someone along who is familiar with the airfield.
- ➤ Watch out for aircraft and other vehicles under low-visibility conditions.
- Allow your self extra travel time and drive slower than you would normally.
- Vehicle operators should remain vigilant of their surroundings and operating boundaries.





## **SNOW OPERATIONS**

➤ Give way to snow removal equipment. Snow equipment may be operating in low visibility conditions and may not be able to see your vehicle. It is best not to be on the pavement when snow ops are in operation.









### **JET BLAST/PROP WASH**

- ➤ Parked aircraft may have their engines running, so be aware of the hazards of jet blast or prop wash, which may over turn vehicles and create flying debris which could cause bodily injury.
- ➤ When an aircrafts red beacon is flashing, the aircraft engine is on and the pilot may be getting ready to taxi.

➤ In either case, never pass behind (unless proper distance allows) or in front of an aircraft when the red beacon is flashing.





## **ACCIDENTS AND EMERGENCIES**

Accidents that cause damage to property should be immediately reported to the tenant or owner and the Airport Authority at (785) 827-3914.

(785) 342-5273. ARFF personnel are trained in Aircraft Rescue and Fire Fighting and basic life support and have the ability to contact resources from the city.

- ➤ Property includes vehicles, aircraft, buildings, ➤ In the event of a plane crash, the Salina lighting, equipment, pavement, signage, etc. Airport Authority will control the emerg
- Should you have a situation that requires assistance, contact ARFF personnel at
- In the event of a plane crash, the Salina
  Airport Authority will control the emergency
  and expect all tenants to stay within their
  leasehold. Should you witness a plane crash
  contact 911.



### SAFETY AROUND AIRCRAFT

- Aircraft <u>always</u> have the right of way.
- A wingtip clearance of <u>15 feet</u> or more is required when driving near a parked aircraft. (Attempt to keep well clear whenever possible.
- Never park a vehicle or equipment behind or near aircraft.
- No parking is allowed in designated aircraft tie-down spaces.





# AIRPORT DRIVING RULES AND REGULATIONS





## NON-MOVEMENT AREA DRIVING RULES

- Aircraft and emergency vehicles always have the right of way
- Enplaning and deplaning passengers and walking pedestrians always have the right of way
- Always yield to emergency vehicles when beacons are flashing
- ➤ Maximum speed on AOA is 15 miles per hour

- ➤ Vehicles operating on tenant leaseholds shall not exceed 15 miles per hour. Tenant may establish more strict requirements for vehicles operating on their leasehold.
- ➤ All tenant vehicles must be parked in their leased areas
- Do not park in a way that blocks fire hydrants, access points, service roads, aircraft tie downs, emergency vehicles, or aircraft.



## NON-MOVEMENT AREA DRIVING RULES

- Motorcycles, motorbikes, three-wheeled motor vehicles, bicycles or scooters are prohibited from operating within the AOA without the express written permission of the Executive Director.
- ➤ Vehicles equipped with windshields must have working windshield wipers.
- > Headlights must be on if and when the windshield wipers are in operation.
- ➤ Motor vehicles operating within the AOA shall operate and display lights from one half hour prior to sunset until one-half hour after sunrise, and at all times when there is not sufficient light to distinguish people and vehicles.

- ➤ No operator shall exit or leave an unattended vehicle within the AOA that has its engine running.
- ➤ No person under the influence of intoxicants, intoxicating liquor or controlled substances, shall operate any vehicle or aircraft upon any Airport property.



## **AOA ACCESS - PERIMETER GATES**

- ➤ All perimeter fence gates are➤ If having trouble with labeled with a gate number.➤ accessing your card to
- ➤ Perimeter gates are assigned with gate cards that are issued by the Salina Airport Authority.
- Access through a perimeter gate other than assigned by your leasehold is not allowed.

➤ If having trouble with accessing your card to your assigned gate, please call Airport operations

(785) 342-9217 or ARFF personnel (785) 342-5273.



## **AOA ACCESS - PERIMETER GATES**

- ➤ Unauthorized vehicles and persons
  ➤ When <u>entering</u> or <u>exiting</u> the AOA are not allowed into the AOA Do not assist anyone onto the Airport that is not with you or your group.
  ➤ When <u>entering</u> or <u>exiting</u> the AOA is a vehicle gate, you must wait for the gate to close behind you before proceeding this is to ensure that
- When entering into the AOA via any access point, it is your responsibility to ensure that no unauthorized person has followed you into the AOA.
- when <u>entering</u> or <u>exiting</u> the AOA via a vehicle gate, you must wait for the gate to close behind you before proceeding this is to ensure that no vehicle is entering the gate without authorization. When gates are closing they may not have sensors to open when an object is in its course of movement.



### **AUTHORIZED ROUTES OF TRAVEL**

Fach vehicle operator receiving a gate card will be given an "authorized route of travel," as covered in the AOA Training. This will be a detailed, specific course over which the driver may operate a vehicle.

- The driver will only be authorized to drive upon those approved portions of the Movement/Non-Movement Area and nowhere else.
- Failure to remain only in the authorized routes of travel will result in disciplinary actions.



### **ESCORT PROCEDURES**

- Any individual not having authorized access to the AOA must be escorted.
- Tenants and leaseholders at the Salina Regional
  Airport are authorized to provide escorts only to and
  from their lease areas.
- ➤ Visitors under escort must be met at the gate entrance and escorted back to the gate each time they enter and exit the AOA.
- Service vehicles and persons being escorted must remain with an authorized escort provider of that tenant at all times.

- The escort vehicle has full responsibility to ensure that visitors under escort remain with the escort vehicle. If the visitor deviates from the escort path, it is the operator's responsibility to apprehend the vehicle under escort before a deviation occurs.
- ➤ Only Salina Airport Authority personnel or other authorized persons and vehicles may provide escort to vehicles and persons requiring access to the AOA movement area.



## **VEHICLE REQUIREMENTS**

- Must be identifiable with a corporate logo or recognizable paint scheme.
- ➤ Must have a rotating amber beacon or approved flag.
- If your vehicle is not properly equipped, you may only drive from your specific access gate to your leasehold.

- Some common vehicles on the AOA include:
  - ➤ Salina Airport Authority Maintenance
  - ➤ Aircraft Rescue and Fire Fighting
  - ➤ Mobile Fuelers
  - > Army National Guard
  - > FAA Technicians
  - ➤ Local Law Enforcement





### **VIOLATIONS OF AOA RULES**

➤ Should you violate any of the ➤ For all offenses a written AQA driving rules, you are violating your privilege to drive on the AOA.

➤ Continuous violations will not be tolerated and the consequences can result in permanent removal of your AOA driving privileges.

notice will be sent to you and your employer





## **VIOLATIONS OF AOA RULES**

Offenses	Remedy
1 <sup>st</sup> Offense	Retake AOA Driver Training Course
2 <sup>nd</sup> Offense	Suspension from AOA for two weeks + 1 <sup>st</sup> Offense Remedy
3 <sup>rd</sup> Offense	Loss of AOA driving privileges



# NON-MOVEMENT AREA DRIVERS CONCLUSION

➤ To guarantee safe operations are conducted at airports, it takes a cooperative effort from all who are involved. This includes pilots, controllers, airport operators, vehicle operators and contractors.



## MOVEMENT AREA DRIVERS TRAINING





### **MOVEMENT AREA**

- >Drivers who are authorized to drive on the >Additionally, they must be able to movement area require more training and vigilance since there are dangers associated with this area that are not present on the non-movement areas.
- ➤ In addition to the principles and procedures for operating in the non-movement area, drivers who have access to the movement area must be knowledgeable of the meaning of airfield signs, markings, and lighting configurations.

communicate with air traffic control (ATC) and be able to follow ATC instructions.





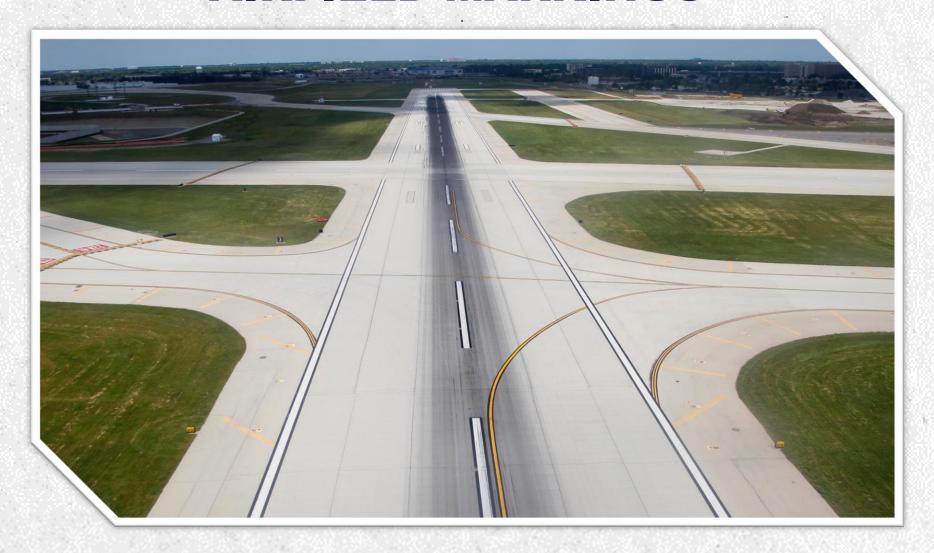
## **MOVEMENT AREA DRIVING RULES**

- You need AirportAuthority permission to be in the movement area.
- Your vehicle must have two-way radio communication with ATC.
- You must be able to speak clearly and know aviation phraseology.
- You must be able to understand ATCT light gun signals.

- Aircraft and enroute
   emergency vehicles always
   have the right of way.
- Keep out of construction areas.
- Nonessential radios should be turned off or at minimal volume.
- A window may be opened slightly to aid in hearing approaching aircraft.



## **AIRFIELD MARKINGS**





## **TAXIWAY CENTERLINE**

- Taxiways are areas used by aircraft to get to and from the apron/ramp and the runway.
- Taxiways are identified by a continuous yellow centerline stripe, with black lines on both sides.





## **ENHANCED TAXIWAY CENERLINE**

A dashed line painted on each side of the existing taxiway centerline. Extends up to 150 feet from the holding position marking.

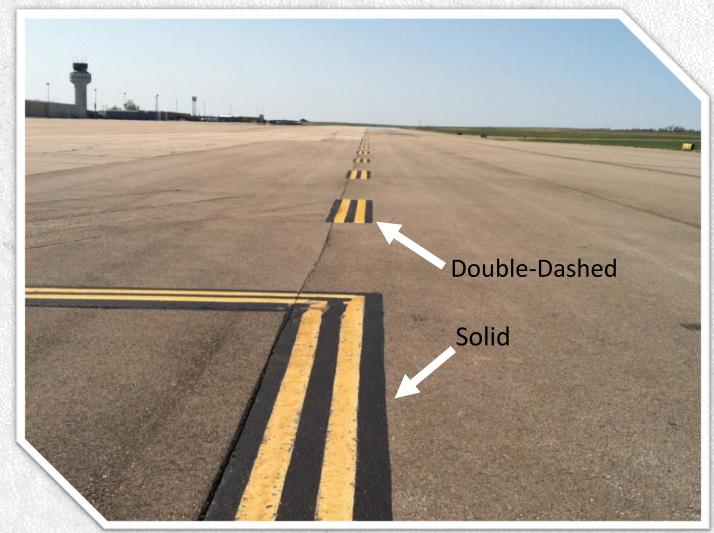
This marking is used to further alert aircraft and vehicles that they are approaching a runway holding short area.





### **TAXIWAY EDGE LINE**

- ➤On the edges of some taxiways, there is a solid, double yellow line or double-dashed line.
- If pavements are usable on both sides of the line, the lines will be dashed; if not, the lines will be solid.





# RUNWAY HOLDING POSITION (HOLD SHORT LINE)

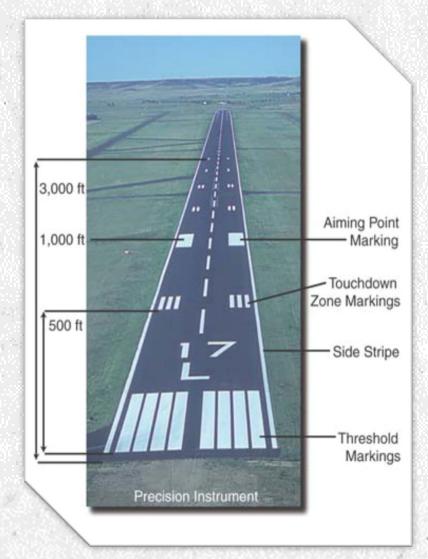
- A pavement marking made up of four yellow lines (two solid lines and two dashed lines) is used to identify the location where a taxiway meets a runway.
- A vehicle operator must <u>never</u> cross from the solid line side without permission from ATC.
- When exiting a runway, you will see these same markings, except your vehicle will be approaching the dashed lines. Your vehicle must completely cross both the dashed and the solid lines to be clear of the runway.





### **RUNWAY MARKINGS**

- Runway markings are painted **white** and vary depending on the type of operations conducted at the airport.
- ➤ Visual runways usually are marked with only the runway number and a dashed centerline, while instrument runways may have additional reference markings to assist pilots in locating the landing portion of the runway.
- Runway numbers are typically painted just beyond the threshold markings.
- Runway threshold markings identify the beginning of the runway that is available for landing.





## ILS CRITICAL AREA HOLDING POSITION

- To identify the location where an aircraft or vehicle is to stop, when it does not have clearance from ATC to enter the ILS critical area.
- When ILS approaches are in progress, you may be asked by the controller to "...hold short of the ILS critical area."
- ➤ Unauthorized penetration could disrupt NAVAIDS and cause a false signal to be transmitted to landing aircraft.



## ILS CRITICAL AREA HOLD SIGN

- Used in conjunction with ILS Critical area hold markings to identify the outer boundary of the critical area.
- This sign tells vehicle operators where to stop to avoid interrupting navigational signal used by landing aircraft.
- ➤ White letters on a red background.
- Penetration into area without permission could disrupt NAVAIDs and cause a false signal to be transmitted to an aircraft.





## **ILS BOUNDARY SIGN**

- > Yellow sign with black markings.
- This sign identifies the boundary of the ILS critical area for pilots and vehicle operators exiting the runway.
- Pilots and vehicle operators must proceed beyond this sign to clear the ILS critical area when instructed to do so by ATC.





## LOCATION OF ILS HOLD BAR AT KSLN





### **RUNWAY SAFETY AREAS**

- ➤ Runway Safety Area (RSA)- is a defined area comprised of the surrounding surfaces of a runway that is prepared or suitable for reducing the risk of damage to aircraft in the event of an undershoot, overshoot, or excursion from a runway.
- Much like the shoulder area on a highway, the runway safety area is intended for use by aircraft in emergency situations, and always should be free of vehicles, equipment and pedestrians any time aircraft are taxiing, taking off or landing.
- The RSA can be identified by a hold line, also known as a holding position marking, which is painted in yellow on taxiway surfaces and collocated with a holding position sign.

Area	Width of Safety Area			
Runway 17/35	500 feet			
Runway 12/30	500 feet			
Runway 4/22	150 feet			
Runway 18/36	150 feet			
Taxiways	118 feet			



## **AIRFIELD SIGNS**





#### **HOLD POSITION SIGNS**

- ➤ Used to denote the entrance to a runway or critical area and is colocated with hold bars.
- White numbering/lettering on a red background.
- ATC Clearance <u>is required</u> to proceed beyond this point and onto the runway.
- At times when the ATC isn't staffed, it is highly recommended that you self-announce your position on the Common Traffic Advisory Frequency (CTAF).





### **LOCATION SIGNS**

- Identifies the taxiway or runway on which the aircraft or vehicle is located.
- ➤ Yellow lettering on a black background.
- Indicate your current location.





## **DISTANCE REMAINING SIGNS**

- ➤ Used to identify the distance remaining on a runway, during take off and landing.
- ➤ White numbering on a black background.
- Provides remaining runway length in 1,000 ft. increments.





## RUNWAY SAFETY AREA BOUNDARY SIGNS

- ➤ Identifies when a vehicle is off of the runway environment.
- > Yellow sign with black markings.
- Visible only when exiting the runway.
- The sign is typically used on towered airports where a controller commonly requests a pilot to report clear of a runway, which occurs when this sign is passed.





#### **TAXIWAY END SIGNS**

- Used to indicate that a taxiway does not continue.
- Retro-reflective sign or barriers with alternating yellow and black angled stripes.

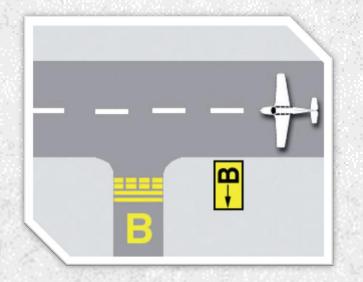


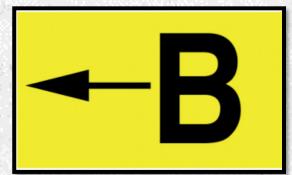


## DIRECTION AND DESTINATION SIGNS

➤ Have black lettering and a directional arrow on a yellow background

The arrow indicates the direction to the taxiway, runway or destination.









## **NO ENTRY SIGNS**

- This sign prohibits aircraft from entering an area.
- > Vehicles may enter if pertinent to the mission.
- This sign would be found at the entrance to a one-way taxiway or at the intersection of a road intended for vehicles.





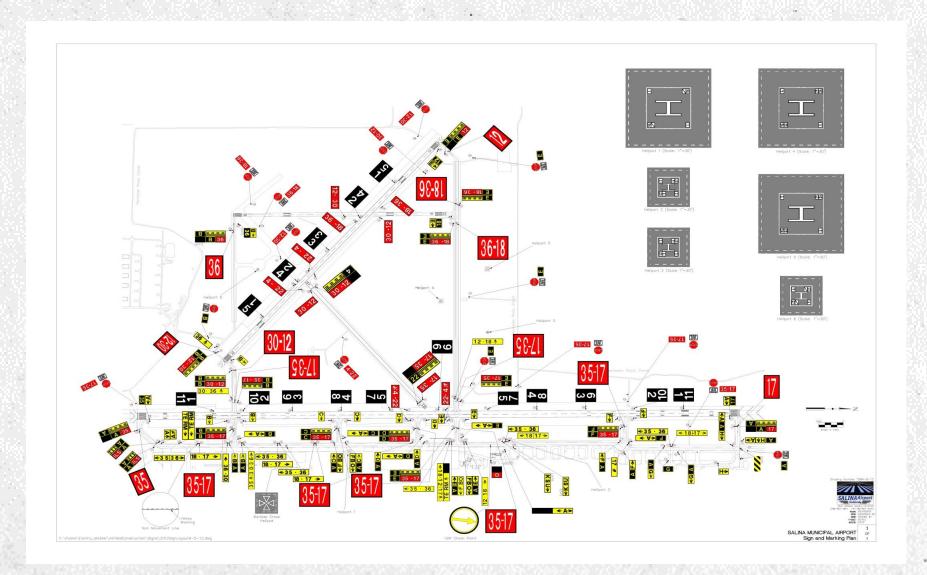
## STOP SIGNS/RSA SIGNS

- Located around the airport near service roads, used to delineate runway safety areas not marked by airfield signs and markings
- ➤ Do Not Proceed without contacting ATC at 121.90 or (785) 825-4806





## **AIRFIELD SIGN AND MARKING PLAN**





## **AIRPORT LIGHTING**





## **TAXIWAY EDGE LIGHTING**

- Designed to identify the edge of the usable taxiway surface at night and during periods of low visibility.
- Taxiway edge lighting is blue.







## **RUNWAY EDGE LIGHTING**



Clear (or white) except the last 2,000 ft. of a runway, lights are amber.



 Designed to identify the edge of the usable runway surface (last 2,000 ft.) at night and during periods of low visibility.



### **RUNWAY GUARD LIGHTS**

➤ Guard lights are used to identify the holding position for a runway especially at night and during periods of low visibility.

➤ Used to enhance the hold bar and elevated signs.





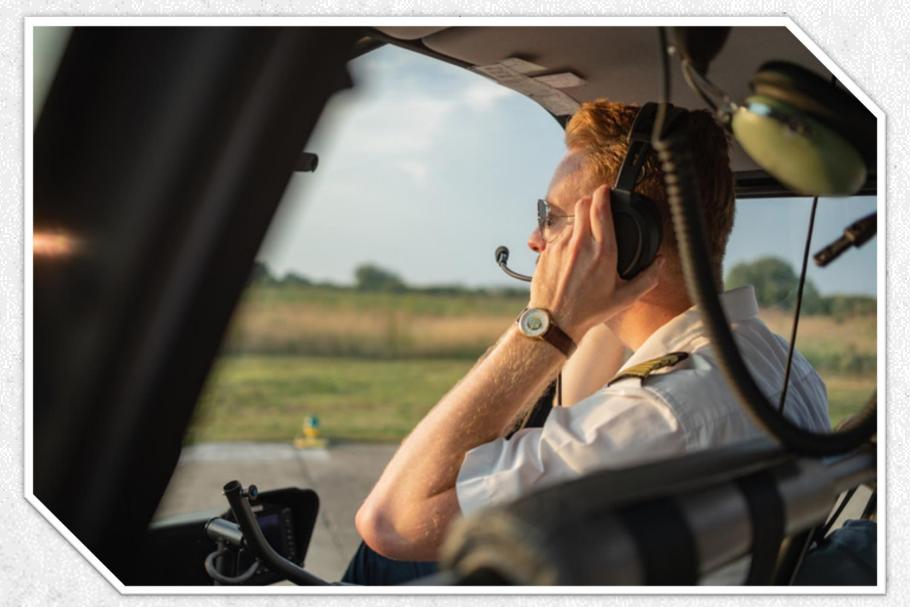
### **RUNWAY END/THRESHOLD LIGHTS**

- Used to depict the threshold or end of the useable runway to aircraft.
- > Arranged in two sets of four lights.
- Have split lenses that are red/green, so they can be used by aircraft landing and departing from both ends of the runway.





## RADIO COMMUNICATIONS





## SALINA AIR TRAFFIC CONTROL

- > Active from 0700-2300.
- > Frequency to use is 121.90
- > Open seven days a week.
- When ATC isn't in operation, all traffic (including vehicles) will broadcast on the Common Traffic Advisory Frequency (CTAF) 119.30

Contact	Frequency	
Ground	121.90	
Tower	119.30	
CTAF	119.30	
ATIS	120.15	

Do not rely on aircraft broadcasting their intentions, because it is optional to do so. PAY ATTENTION!





## **TOWER FREQUENCY**

- Controls the movement of aircraft on airport runways and airport airspace.
- ➤ Only used for pattern traffic or as directed.
- The tower frequency for this airport is <u>119.30</u> MHZ.





## **GROUND FREQUENCY**

- Responsible for the control of aircraft, vehicles, and pedestrians on controlled airport surfaces, except runways.
- ➤ The Ground Control frequency for this airport is 121.90 MHZ.





## RADIO COMMUNICATION PROCEDURES

- > Each vehicle has a designated call sign. For example: "Airport One"
- Tune your two-way radio to ground control frequency of 121.90 and be sure to set volume and squelch.
- Before making a transmission, listen. Don't step on someone else's transmission and don't jump in the middle of another communication.
- Next, think about what you will say. When the frequency is clear, tell the ground controller:
  - Who you are.
  - Where you are.
  - What you want to do.



## RADIO COMMUNICATION PROCEDURES

- If the ground controller gives you instructions to hold short of a runway or taxiway, you must *read back the holding instructions to the controller*. <u>THIS IS MANDATORY</u>.
- Entering a movement area without prior permission from ground control constitutes an incursion. This act is a violation of FAA and Airport Rules and Regulations and is punishable by fines, suspension, and/or revocation of driving privileges.
- Remember: When driving on the movement areas (runways and taxiways) you must be in contact with Salina Air Traffic Control and monitoring the appropriate frequency at all times.



## PROPER PHRASEOLOGY

➤ Identify who you are calling/name of caller.



Salina Ground, Airport 2, is on the ramp at echo and would like clearance to, cross runway 17 and drive to the old tower site.

Identify where you are and your intentions.



> Wait for a response.



Always repeat the instructions back to the tower.

Airport 2, Salina Ground, cross runway 17 at echo and proceed to the old tower site.

Cross runway 17 at echo and proceed to the old tower site, Airport 2.



### PROPER PHRASEOLOGY

- ➤ Common Aviation Terms and Phraseology:
  - Roger (I understand)
  - ➤ Wilco (Will comply)
  - > Affirmative (Yes)
  - Negative (No)
  - ➤ Go Ahead (State your request this never means proceed)
  - > Standby (Wait...I will get back to you)
  - ➤ Hold Position (Stay in place where you currently are)
  - > Hold Short Of (Proceed to, but do not cross a specific point)
  - Unable (Inability to comply with request)
  - Without Delay (Follow instructions expeditiously)
- Confused about the instructions given by ATC? Ask for a "progressive taxi" ATC will give you step-by-step instructions to get to your destination.



## LOST COMMUNICATIONS

- ➤ If you lose two-way radio capability with the ground controller while in the movement areas DO NOT PANIC. Check the radio volume, channel, or squelch level. If you are still unable to communicate with ground control, perform the lost communication procedure as follows:
  - 1) Pull safely off the pavement into the nearest grassy area. Pull off far enough to allow aircraft to taxi past.
  - 2) Point the vehicle headlights towards the control tower.
  - 3) Flash the vehicle headlights to attract the controller's attention.
  - 4) Wait for a light gun signal and comply with the signal sent by the controller.



### **LIGHT GUN SIGNALS**

(Used when a two-way radio system between the air traffic control facility and aircraft or vehicle is unavailable or inoperative.)

LIGHT GUN SIGNALS								
COLOR AND MOVEMENT OF VEHICLES, TYPE OF SIGNAL EQUIPMENT, AND PERSONNEL		AIRCRAFT ON THE GROUND	AIRCRAFT IN FLIGHT					
STEADY GREEN	Cleared to cross, proceed, or go	Cleared for takeoff	Cleared to land					
FLASHING GREEN	FLASHING GREEN Not applicable		Return for landing (to be followed by steady green at the proper time)					
STEADY RED	Stop!	Stop!	Give way to other aircraft and continue circling					
FLASHING RED	Clear the taxiway/runway	Taxi clear of the runway in use	Airport unsafe, do not land					
FLASHING WHITE Return to starting point on airport		Return to starting point on airport	Not applicable					
ALTERNATING RED AND GREEN	Exercise extreme caution!	Exercise extreme caution!	Exercise extreme caution!					



## COMMUNICATE TO PREVENT RUNWAY INCURSIONS

- ➤ See the big picture When possible monitor both ground and tower frequencies.
- Transmit clearly Make your requests and read backs complete and easy to understand.
- Listen carefully Listen to your clearance. Do not let communications become automatic.
- > Situational awareness Know your location. Know what is going on around you, in all directions.
- ➤ Admit when help is needed Ask ATC for help. Better to damage your pride than property.



### PHONETIC ALPHABET

- To minimize confusion between similar sounding letters and numbers ATC will use this alphabet during all transmissions to pronounce letters and numbers.
- When saying runway numbers, say each number individually. For instance, runway 17 is pronounced "One Seven"

Α	Alpha	M	Mike	Υ	Yankee
В	Bravo	N	November	Z	Zulu
С	Charlie	0	Oscar	0	Zero
D	Delta	P	Papa	1	One
Ε	Echo	Q	Quebec	2	Two
F	Foxtrot	R	Romeo	3	Three
G	Golf	S	Sierra	4	Four
н	Hotel	Т	Tango	5	Five
1	India	U	Uniform	6	Six
J	Juliet	V	Victor	7	Seven
К	Kilo	W	Whiskey	8	Eight
L	Lima	Х	X-Ray	9	Niner



## **ARFF/OPERATIONS**

If you need any assistance while operating on the AOA contact ARFF or Operations personnel.

Please take note of this phone number: ARFF/Operations (785) 342-5273



### CONCLUSION

To guarantee safe operations are conducted at airports, it takes a cooperative effort from all who are involved. This includes pilots, controllers, airport, operators, vehicle operators and contractors.

If your instructor is not present, inform them that you are done with the training and ready to take the knowledge test.

