



Surface & Airborne Safety When ATC - 0

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**Federal Aviation
Administration**

Surface, Airborne, and Enroute Safety When ATC-0

Presenters:

- Surface Safety; FAA Runway Safety, Movement Areas
- Airborne Safety; FAA Safety Team, Flight Operations
- Terminal Communications; ZSE (Seattle Center), Enroute

Introductions:

Surface Safety When ATC-0

PURPOSE

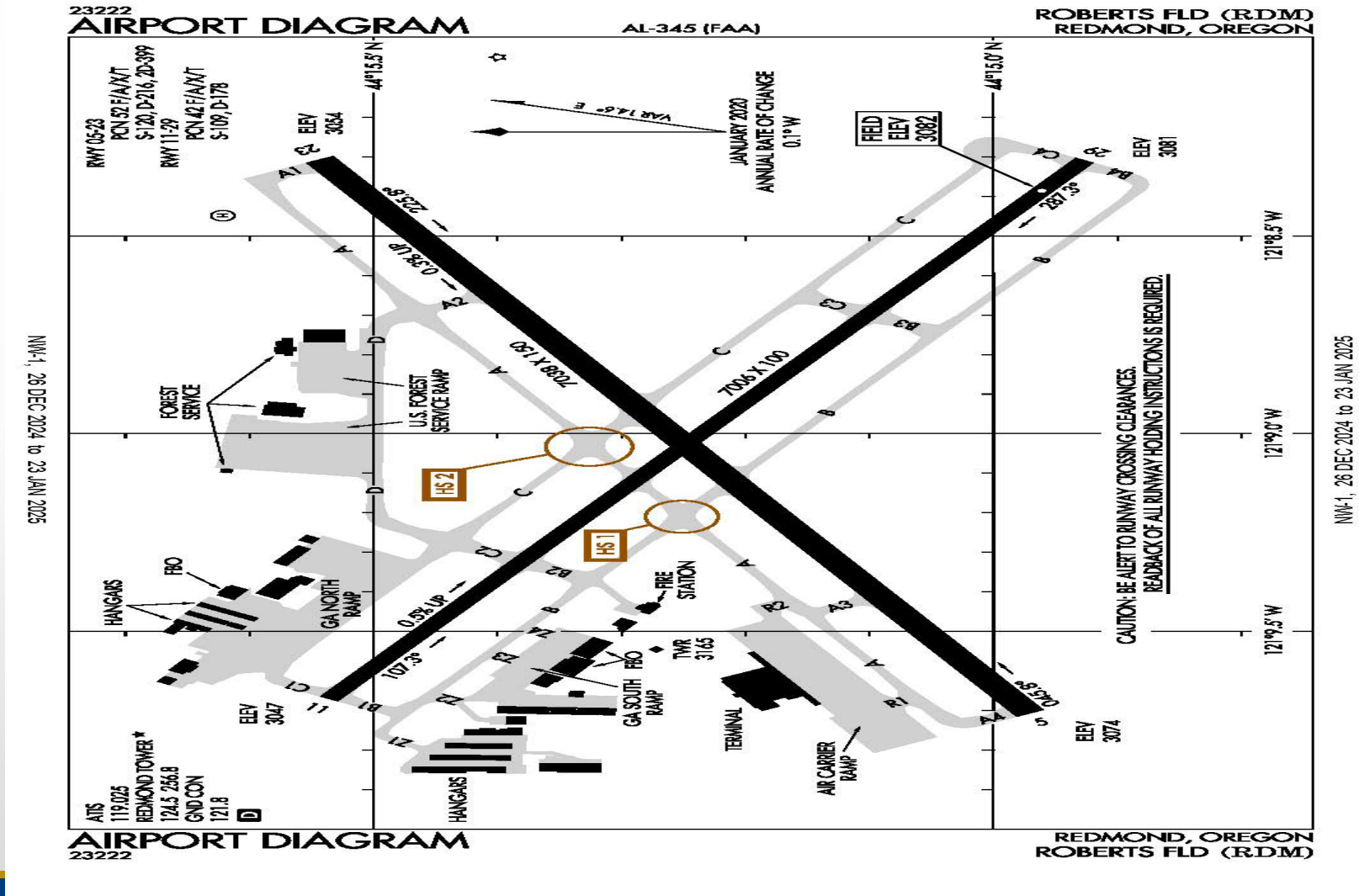
- RDMNMAC Incidents
- Improving Pilot Situational Awareness
- AC's: 90-66C Non-Towered Airport Flight Operations &
- 90-48E Pilots' Role in Collision Avoidance

- AC Copies Available

GOAL

- Improving Aviation Surface, Airborne and Enroute Safety when RDM is ATC-0.

RDM Facility Diagram



RDM Near Mid-Air Collisions (NMAC)

NMAC

- June 27, 2024, at 0525L: Possible Loss of Separation (ATC-0)
 - AC1 Announced intentions while on Ramp. Did not announce departure, Runway 5.
 - AC2 Announced intentions while on Ramp and later announced departure, Runway 11.

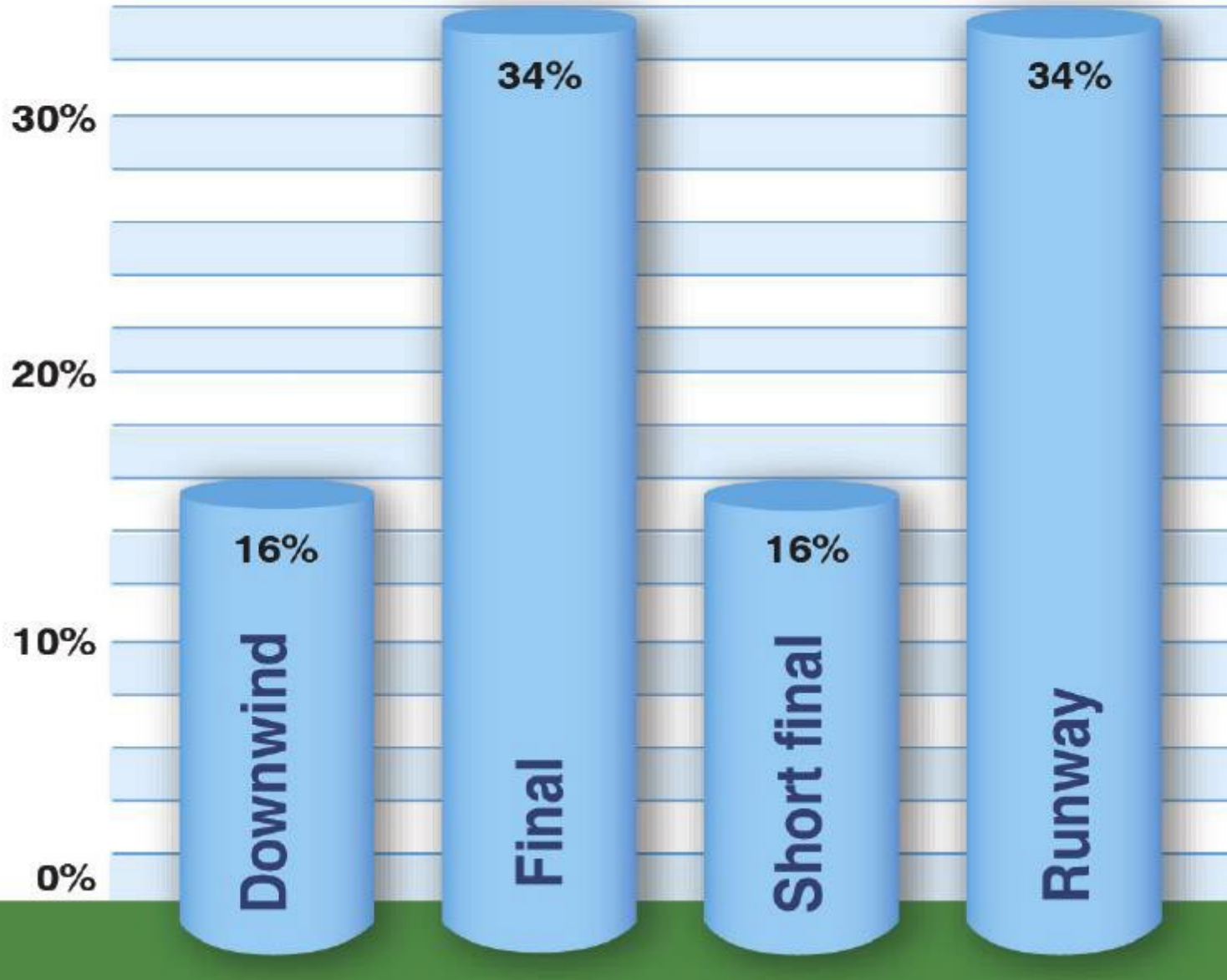
Both aircraft departed at the same time and narrowly missed each other in flight.

RDM Near Mid-Air Collisions (NMAC)

NMAC

- October 14, 2024: Possible Loss of Separation (ATC-0). Smoky, hazy, sunset.
 - AC1 TCAS RA on RNAVMR29 to RDM. Pilot noticed Fire Fighting Tankers approaching from the East, and they did not report intentions on CTAF.

Distribution of Mid-Air Collisions in the Airport Traffic Pattern



90-66C: Best Practices Before Entering the Movement Area:

Phraseology:

- **“Any Traffic In The Area, Please Advise” is not a recognized self announced position and or intention phrase.**
- **...Avoid using the words “to” and “for”...might be confused with runway numbers or altitudes.**
- **Announce over the CTAF that they are a student pilot solo (90-48E)**
- **The CTAF should not be used for personal conversations**
- **See and Avoid**

Phraseology:

RDM

- FAA Video: Non-Towered Operations, Part 1: Communications

<https://www.youtube.com/watch?v=xE68vqzVyFA>

PaPPPP

Best Practices in the Movement Area:

- 90-66C Awareness:
- **Preflight Actions, ...e.g., Chart Supplements, the AIM, and NOTAMs**
- **Monitor Common Traffic Advisory Frequency (CTAF) 10 minutes prior to taxi and arrivals.**
- **Scan for operations on other runways that may conflict with your operation.**
- **No-radio Aircraft**
- **Keep lights and strobes on.**
- **FAA discourages back taxi operations**
- **...A clear line of sight to other runways, ...during departures.**
- **See and Avoid**

NMAC Airborne Avoidance

FAA AC 90-66C

- 9.12.4: **Right of Way.** ...”When one aircraft gives another aircraft the right of way, the pilot shall give way to that aircraft and may not pass, **under**, or ahead of it unless well clear.”
- 9.12.5: **...Airports with Multiple Runways...**”Use the CTAF and ask the other departing aircraft which runway they are departing from or landing on to avoid the risk of a takeoff or landing collision with another aircraft.”

NMAC Avoidance

FAA AC 90-66C

- 10.4.2: **IFR Departure:** ...”Departing aircraft should monitor/communicate on the appropriate CTAF from startup and during taxi so that they are aware of arrival aircraft landing at the airport...This requires the departing aircraft to “see-and-avoid” while receiving IFR clearances on the ground from a Remote Transmitter Receiver or a Remote Communications Outlet, as these can limit your LOSA of other aircraft entering the movement area while not monitoring CTAF.
- 10.4.4: ...”**An ATC IFR clearance and ATC stating release are not authorizations to takeoff.**” If your takeoff is going to be delayed, contact and advise ATC.

NMAC Avoidance

FAA AC 90-66C

- 10.4.4 **Immediate IFR Departure:** ...Communicate on CTAF, announce the airport name, type of aircraft, call sign, location, intention to takeoff, state the runway in use, initial departure altitude, direction of flight, call for any aircraft in the pattern or inbound to the airport for landing, and airport name.

NMAC Avoidance RECAP

FAA AC -90-48E

- 10.4.1 Lights, Camera, Action:
- ...”**Lights.**”: Turn on your landing light and other lights appropriate for the conditions of flight to increase your visibility to other traffic.
 - “**Camera**”: Turn on your transponder for ATC identification
 - “**Action**”: ...At a non-towered airport, announce the airport name, “Traffic,” your call sign and aircraft type, make/model, location, intention(s), and airport name.

Best Practices When Airborne:

- 90-66C Awareness:
- **Fly the Standard Traffic Pattern...at traffic pattern altitude and avoid straight in approaches**
- **Left Traffic... unless indicated otherwise**
- **Self-Announce Position and/or Intentions...on the designated CTAF...when entering within 10 miles of the airport.**
- **“ANY TRAFFIC IN THE AREA, PLEASE ADVISE is not a recognized self-announce position and/or intention phrase**
- **Collision Avoidance...keep lights and strobes on...see and avoid other aircraft**
- **No-Radio Aircraft**



Best Practices When Airborne:

- 90-66C Awareness:
- **Straight-In Landings.** The FAA discourages VFR straight-in approaches to landings due to increased risk of a midair collision.
- **Consider That Non-Instrument-Rated Pilots May Not Understand...IFR pilots often indicate that they are on a particular approach, but that may not be enough information for a non-IFR rated pilot to know your location.**
- **Wake Turbulence...pilots should be prepared to encounter turbulence...when in trail of other aircraft**

Best Practices When Airborne:

- 90-66C Awareness:
- **Pilots should not broadcast their assumed sequence for landing**

Best Practices When Airborne:

- 90-48E Awareness:
- **In Flight Collision Avoidance Operations**
 - **Typical Midair Collision Scenarios**
 - **Approaching Head-On**
 - **Overtaking (During Cruise Flight)**
 - **Landing at Non-Towered Airport**
- **...Worse-case scenario is a low-wing airplane flying above a high-wing airplane. Banking from time to time can uncover blind spots.**



Open Discussion:

RDM

- FAA Video: Non-Towered Operations, Part 2: VFR Traffic Pattern

<https://www.youtube.com/watch?v=9-WRYYGgpww>

PaPPPP

Best Practices When Enroute:

1. **Collision Avoidance Assistance**. ATC provides ATAS, which is an excellent addition to scanning resources to mitigate midair collisions. To arrange for the service, contact the airport's clearance delivery and request the ATC frequency to contact after takeoff to request ATAS. Further, the ATC facility frequency that can provide this service is available in the d-CS for the respective airport during your preflight planning process. The ATC departure frequency can also be found on the airport's information page or by contacting the Flight Service Station (FSS) after departure by using the flight service common frequency of 122.2 megahertz (MHz). For more information, refer to the [Aeronautical Chart Users' Guide](#).
2. **See and Avoid**

Closing - Questions ?



QR Codes

FAA RUNWAY SAFETY

 FAA From the Flight Deck	 YouTube	 Runway Safety Home Page	 Pilot Simulator
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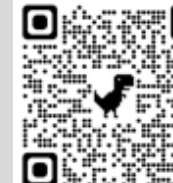
AIRFIELD OPERATIONS

 Airfield Operating Surfaces Video	 Airfield Driver Situational Awareness	 Airfield Driver Phraseology	 Airfield Driver Winter Operations
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AIRFIELD CONSTRUCTION

 NOTAMS	 Checklist	 CND	 ACAC Mailbox
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FAA WEBSITES/LINKS

 Airport Diagram	 AAN	 EMAS/RIM	 FAST
 Hot Spot Description	 ARP SMS	 ATO SMS	

