

FAA Order 8400.9

National Safety and Operational Criteria for Runway Selection Plans and Noise Abatement Runway Use Programs.

Presented to: ACF

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Federal Aviation
Administration



History

- **Order 8400.9 originally issued in 1981**
 - No updates since
- **Established Formal/Informal plans for noise abatement**
- **No published wind limits in ATO, therefore the order became the default for use as a selection limit for locations that were utilizing “Operationally Advantageous”**
- **Joint effort between AFS-410 and ATO evolved into Runway Use *and* Runway Selection Plans**



Purpose of Order 8400.9

The purpose of this order is to provide a process for **towered (Part 139) airports** to identify operational parameters for the safe arrival and departure of aircraft at airports. Airports with formal or informal noise abatement programs are required to have a Runway Selection Plan as part of their Noise Abatement Runway Use Program. The Runway Use Plan defines noise-preferred runways and includes wind/weather/environmental limitations for operating in the preferred configuration.

Runway Selection guidance provided in Federal Aviation Administration (FAA) Orders 7210.3 *Facility Operations and Administration* and 7110.65 *Air Traffic Control*, is based on wind, operational advantage and pilot request. In addition to runway use, **this Order will provide the process for determining the maximum crosswind and tailwind components for each runway at an airport.** The derived values will provide the maximum wind component (direction and speed) by which the **airport must be reconfigured**, or use of a particular runway discontinued. Wind criteria for runway selection are addressed in Section 10 of this order.



Revision Rational

- **Commercial Aviation Safety Team (CAST) Safety Enhancement (SE 219)**
- **NTSB Recommendation (A-10-109/AAR-10-04)**
- **Provide guidance at locations using Operationally Advantageous**
 - ATO received numerous ATSAP reports on pilot/controller runway selection issues leading to corrective action reports
 - Issues arose where operational capacity flow overrode most favorable wind
- **Waiver request (SFO)**



Revision Work Group

Flight Standards

Pilot Groups and Unions

Air Traffic Organization

NATCA

Airports

Runway Safety

- **Meeting since 2013 to address safety concerns and operational realities**
- **Group defined terms, responsibilities, safety criteria including wind limits**



Re – Write Elements

- The revised order recognizes that each airport & runway is unique
- Re-write effort evolved into Runway Use and Runway Selection Plans
- Each airport has the responsibility for designing Use & Selection criteria unique to that airport within the criteria of the revised order
- The order references a newly created Runway Selection Safety Team (RSST), through the Service Center Manager, that is tasked with developing an airport plan



Runway Selection Safety Team (RSST)

- The RSST determines maximum wind components for the airport's runways
- Due to the importance of establishing unique airport wind limits, the team is comprised of representatives of the local user community (air carriers, general aviation, military, labor organizations, as appropriate), airport operator, the local Airway Facilities office, Flight Standards (The Regional NextGen Branch Manager will determine the Flight Standards representative), ATO Management and the National Air Traffic Controllers Association (NATCA) from both the Airport Traffic Control Tower and the Approach Control Facility.



RSST Considerations

- **Each airport's Runway Selection Safety Team (RSST) is tasked with considering a large variety of factors**
- **Each airport may set its own parameters, but must remain within the limits of the revised order**
- **Nothing is intended to infringe upon the responsibilities of the Pilot-in-Command.**
- **An RSST must be held within the first 12 months of publication of the new 8400.9**



RSST Considerations

- **Runway design**
- **Aircraft performance**
- **Approach guidance**
- **ATO**
- **Contaminated runway**



Industry/Operator Involvement

- **Advisory Circular (AC 90-xxx) and the RSST**
 - What it is?
 - Does it apply to me?
 - Why should I care?
 - Safety – The big picture
 - Who should I send?
 - Current and experienced **Pilot** personnel
 - What information is the operator representative expected to have?
 - Aircraft limitations and an experienced perspective of real life line operations.



Questions?



Backup Slides



8400.9

- b. The crosswind/tailwind limits in this document are maximum limits, and should not be used as a starting point in the RSST process.** The maximum may not be appropriate for all runways or all aircraft. The limits derived by the RSST are maximum limits to aid ATC decision making in the selection of a runway and not to limit aircraft operations. The RSST must document justification for the limits established for its Runway Selection Plan. Each airport has its unique operational environment that must be taken into consideration as stated in Appendix A.



8400.9

b. Maximum crosswind component (including gust)

- i. Dry Runway: 25 kts
- ii. Wet Runway: 15 kts
- iii. Contaminated Runway: 15 kts

b. Maximum tailwind component (including gust)

- i. Dry Runway: 10 kts
- ii. Wet Runway: 10 kts
- iii. Contaminated Runway (< 8000 ft) < 3 kts (reported as calm)
- iv. Contaminated Runway (\geq 8000 ft) 5 kts



Runway Use Vs. Selection

- **Use equals Noise. Selection is all other**
- **Selection complies with 7210.3 on most favorable wind**
- **Therefore:**
 - **The design criteria will reside in a revised Order 8400.9, and a revised 7210.3**

