

Noise Advisory Committee

REPORT DESCRIPTIONS

1. CHARTS

Page 1

Actual distribution of Runway 29 arrivals

Expected R29 Approaches according to weather and procedure eligibility

Page 2

Analysis of flight path and weather conditions for Arrivals on RWY 29

Pages 3 & 4

Procedure eligibility based on weather at time of flight for all flights approaching over LAND

Procedure eligibility based on weather at time of flight for all flights approaching over PEAKS

Pages 5 & 6

Preferred Runway 10pm-7am NCP Compliance - Arrivals and Departures (Month and YTD)

2. MONITOR

NSH NONCOMPLIANT	2-MONITOR
10pm-7am Preferred Runway Noncompliance for:	
(1) Unknown Reason – Deviation could have used NSH Preferred Runway OR	
(2) After-Hour Primary Runway set before change in weather	
<p><i>NSH NONCOMPLIANT</i> Lists all flights from 10pm-7am that should have been able to arrive from or depart to the west but did not do so. These flights are divided into 2 groups; (1) those with no known reason for noncompliance (marked by pale red on far left) and (2) those where the reason for noncompliance could be explained by a change in weather after the primary runway was set by the Tower when closing at midnight (marked by pale green on left side). This list will be sent to the Tower for review of flights in group (1).</p>	

NONCOMPLIANT ARRIVALS OVER LAND	2-MONITOR
Took LAND when (1) HVA/RNP-Eligible (pre RNP Procedure) or (2) RNP-Eligible (post RNP Procedure)	
<p>NONCOMPLIANT ARRIVALS OVER LAND lists each flight that flew a LAND approach to Runway 29 when it had been eligible to fly one of two water approach procedures (as defined in the PARAMETER TABLE in the UNDERSTANDING REPORTS folder). The “HVA/RNP” arrival procedure is the Harbor Visual Approach procedure that is active today and will continue to be active into the future. Flights that did not comply with using the HVA/RNP procedure when eligible are listed in the first section of the report (marked by light blue on the far left) and will be sent to the Tower as noncompliant flights needing review. The “RNP” arrival procedure is a new procedure being developed by the Jetport. Even though the RNP procedure is not active yet, the report is created as if it were active to show the flights that took LAND that will be eligible to take the RNP water approach once the procedure becomes active. The November 2024 and December 2025 reports show the flights that would have been noncompliant with an active RNP procedure (marked by light orange on the far left). In 2025, only the total count of these flights will be included. Once airlines are using the RNP, the noncompliant RNP flights will be listed and sent to the Tower for review as well.</p> <p>The black dots on the right side of the report indicate which virtual gate(s) each flight crossed. (See MAP in UNDERSTANDING REPORTS folder for exact location of gates.) A flight will be counted as a LAND approach for each of the following cases:</p> <ol style="list-style-type: none"> 1. Crossed only the NORTH gate or the SOUTH gate. 2. Did not cross any of the NORTH, SOUTH or WATER gates. 3. Crossed either the NORTH or SOUTH gate and the PEAKS gate. These flights will also be listed on the Arrivals over Peaks report but will not be included in the total count of approaches over Peaks. 	

ARRIVALS OVER PEAKS	2-MONITOR
<p align="center">Crossed Peaks Gate when (1) HVA/RNP Eligible (pre RNP Procedure), (2) RNP Eligible (post RNP Procedure) or (3) Land Track Expected</p>	
<p>ARRIVALS OVER PEAKS lists each flight that went over Peaks Island on approach to Runway 29. It includes flights that used the RNAV Visual procedure as well as flights that veered over the island when using the HVA procedure. The report is sorted by the approach procedure each flight was eligible to use as determined by weather conditions at the time of approach.</p> <p>In determining RNP-eligibility, the RNP procedure has replaced RNAV on the Parameter Table design (see Parameter Table in the UNDERSTANDING REPORTS folder) and will use the values previously defined for the RNAV until the RNP is designed and its required weather conditions are established. Flights that are RNP-eligible and cross Peaks while also crossing the WATER gate are considered RNP</p>	

compliant for now. Once the RNP procedure is active and heavily used, both HVA/RNP eligible and RNP-eligible flights for airlines that have signed on to use the new procedure will become noncompliant if they cross the PEAKS gate.

Flights crossing both the PEAKS gate and the WATER gate are included in the “Peaks” section of the report and will be included in the total count of flights approaching over Peaks. All flights crossing Peaks but not crossing the WATER gate will be listed in at the top of this report in the “Land” section but will be included in the total count of flights approaching over land instead of Peaks. The flights in each of these sections is sorted into (1) HVA/RNP Eligible, (2) RNP Eligible, or (3) OK to take Land

Once the RNP procedure is active, this report can be used to monitor the effectiveness of efforts to get airlines using the new procedure. Eventually, this report will be used with the **Noncompliant Arrivals over Land** report to determine which flights were in noncompliance of using a noise mitigating procedure over-water approach.

EARLY NORTH / SOUTH TURNS	2-MONITOR
Departed Runway 11 and made early turn (1) North or (2) South	
<p>EARLY NORTH / SOUTH TURNS The current flight procedure for departing on Runway 11 has all departures staying over the Fore River until reaching Portland Harbor, where it then loops north around the Portland peninsula or south around the north tip of Peaks. Flights that deviate from this expected path need to be reviewed. Virtual gates (see MAPS for gate locations) have been set up to capture flight data for the following track deviations:</p> <ul style="list-style-type: none"> (1) A flight crossing only the NORTH gate will be considered an EARLY NORTH deviation (2) A flight crossing only the SOUTH gate will be considered an EARLY SOUTH deviation (3) A flight that crosses the WATER gate and then the PEAKS gate without going through the NORTH or SOUTH gates will be considered as having flown an acceptable track. This may change with a revised or new departure procedure. (4) A flight that veers north or south then adjusts course, returning to the correct path and proceeding through the WATER gate, will be reviewed and noted if inclement weather could have been the reason for veering off course. 	

RUNWAY 18/36	2-MONITOR
The Expected Runway (1) Primary RWY 11/29 or (2) Crosswind RWY 18/36 for each operation on Runway 18/36 based on weather at time of flight	
RUNWAY 18/36 lists all flight activity on Runway 18/36, dividing them into two groups: (1) flights that used Runway 18/36 but were expected to take Runway 11/29 given weather conditions at time of flight and (2) flights that used Runway 18/36 when expected. The list of flights in group (1) will be reviewed by the Jetport and Tower to determine if the count is an acceptable level.	

3. ANALYZE

DAILY COMPLIANCE SUMMARY	3-ANALYZE
DAILY COMPLIANCE SUMMARY shows how well noise mitigating procedures were used each day of the month. Daily counts are given for flight operations, how many of those flights were expected to use a noise mitigating procedure, how many flights actually used it, and the percentage that was noncompliant for both water approaches to Runway 29 and preferred runway use during noise sensitive hours.	

OPERATOR NSH SUMMARY	3-ANALYZE
10pm-7am Flight Activity by Operator	
OPERATOR NSH SUMMARY shows how well each airline complied with using the preferred runway for arrivals and departures during noise sensitive hours. For every airline, the following counts are provided for each combination of actual runway used to which runway was expected given the weather conditions at flight time	
<ol style="list-style-type: none"> 1. Flights exempt from using the preferred runway because of weather 2. Flights that successfully used the NSH preferred runway 3. Flights that had to go with the flow of traffic (i.e. a flight that is departing during that time period of 10pm-4am when preferred runway is set for arrivals will have to go with the flow of the arrivals to avoid a head on collision) 4. Flights where the actual runway deviated from what was expected and the reason is unknown (Noncompliant - Unknown Reason) 5. Flights where the actual runway deviated from what was expected based on the weather at the time flight, but the primary runway setting no longer matched the current weather conditions and the flight most likely used what was set as the primary runway (Noncompliant - AH Primary Runway) 	

OPERATOR RWY29A SUMMARY	3-ANALYZE
Analysis of Runway 29 Arrivals by Operator	
<i>OPERATOR RWY29A SUMMARY</i> lists for each airline the flight count for the actual path taken to what was expected when arriving on Runway 29. This report can be used to identify airlines repeatedly using a flight procedure on approach that is not consistent with our Noise Compatibility Program.	

DAILY RUNWAY SUMMARY	3-ANALYZE
Total Daily Flights by Runway and Operation	
<i>DAILY RUNWAY SUMMARY</i> summarizes the daily use of each runway for arrivals and departures, with total numbers for the date range at the bottom.	

NSH EXEMPT DUE TO WEATHER	3-ANALYZE
10pm-7am Flights Exempt from Compliance Due to High Tailwind or Crosswind or Gusts	
<i>NSH EXEMPT DUE TO WEATHER</i> lists all flights with weather conditions outside of the required minimums to be eligible for using the preferred NSH runway.	

4. DATA ISSUES

UNKNOWN RUNWAY	4-ISSUES
Data File Problems - Runway Field Missing, Invalid or Mis-typed - These flights are excluded from reports	
<i>UNKNOWN RUNWAY</i> lists all line entries on the flight data file where runway field was missing, invalid or mis-typed. There are often double entries for a flight where one of the entries is missing a runway. The flight entries where runway cannot be determined are excluded from all other reports	

IRREGULAR GATE ACTIVITY	4-ISSUES
<p style="text-align: center;">Arriving Flights on RWY 29 which either:</p> <ul style="list-style-type: none">(1) Crossed Peaks but did not cross the Water Gate; or(2) Did not cross any of the North, South, or Water entrance gates; or(3) Crossed multiple entrance gates or the same gate multiple times; or(4) Crossed the North gate.	
<p><i>IRREGULAR GATE ACTIVITY</i> lists any flight with gate activity that shouldn't normally occur. For example, a flight that crossed the PEAKS, WATER, and SOUTH gates on approach is most likely a flight that circled back around after aborting its initial approach. The only way to know for sure why these flights did what they did is to replay the track history for that day and time using the Jetport's flight track monitoring system.</p>	