N-PBS

Administrator's Guide 23-3

NAVBLUE ACADEMY

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NAVBLUE ACADEMY
AN **AIRBUS** COMPANY

This document describes NAVBLUE N-Preferential Bidding Administrator version 23-3. Subsequent revisions of the product may provide additional functionality or modify the limits described in this document. The information in this document is furnished for informational use only, is subject to change without notice, and should not be construed as a commitment by NAVBLUE Systems Support Inc.

N-Preferential Bidding Administrator's Guide 23-3

This manual contains information on all versions of NAVBLUE N-Preferential Bidding Administrator interface.

If you don't see the option on your interface that is described in this manual you don't have it.

What's new in this release? - click [here](#) for more information

Table of Contents

What's New in this Release

This page describes some of the new features in the N-Preferential Bidding 23-3 release. Not all features are available or applicable to all customers if you see don't see a feature described here on your screen you don't have it.

Browser Cache

NAVBLUE recommends that all users clear their browser cache before using N-PBS version 23-3. See your browser documentation for instructions on how to clear the cache.

Release Items

New Features

S-70319 - AAY - Mixed Line Reserve Day On - WebApp

There is a new bid available in the Reserve bid group called **Award Reserve Day On**. It supports either a single or a preferred order of list of dates (e.g., Award Reserve Day On Feb 5, Feb 10, Feb 15, and Feb 28). It is configured for AAY/AAYP (both pilots and cabin) within both current and default bids.

The current bid only allows dates of the current period. The default bid allows all dates. The calendar will not allow the selection of the Day of the Week (e.g., Friday, Saturday). It will only be a list of individual dates.

This new feature includes adding the bid to the configuration (category options xml and category options xsd):
- <ReserveBids>
- <Order>
- <Id>PreferrOff</Id>
- <Id>LineCondition</Id>
- </Order>.

The new section includes:

- AwardReserveDay at same level as Prefer Off, Line Condition
- All or Nothing group options
- Else Start Next Bid group options.

There is no limit to the number of Award Reserve Day bids that are allowed in a Reserve bid group. There is also no limit to how many dates are on a single bid line.

S-72798 - ALL - Add employee IDs to invalid bid message - Scheduler

An employee's ID is now added to an invalid bid message. This is the red X that appears under the "Valid" column after the Scheduler reports an exception. The message shows with the red X when one or more bidders have invalid bids. This allows the administrator to quickly see which crewmembers have invalid bids and adjust them accordingly.

S-69946 - ASA - Pilot initial configuration

The initial configuration of the N-PBS system for ASA pilots is available.

S-70369 - ASA - Pilot - Co-Terminal Rest rule and waive bid

A new Co-Terminal Rest rule has been introduced for ASA pilots. If a pilot does one pairing from one station (e.g., BUR) then next from a different terminal (e.g., SNA), the pilot needs 13 hours of rest. This can be waived by the pilot down to 10.5 hours. This only applies if two consecutive activities are both pairings. This can be found in the Reasons report as "Insufficient Co-Terminal Rest".

Further specifications about the rule are:
- the rule will have one parameter called "Rest Minutes".
- there are two instances of the rule to allow the waive.
- a waive bid has been introduced under this feature.
- the syntax is "Co-Terminal Rest".

S-70624 - ASA - Pilot addition of Midnight Offset to Max Days On rule

A new parameter is now available called **Add The MidnightOffSet Parameter to the Pairing - MaxDaysOn Rule**. The Midnight Offset parameter affects the ends of activities, including both pairings and working absences. The Midnight Offset displays in minutes.

Any activity which ends at or before 00:00 plus the midnight offsets, and starts on an

earlier day, is treated as ending on the previous day. It will not count as work for the "next day". For example, a setting of 120 minutes will cause any activity ending at or before 02:00, which starts on an earlier day, to be treated as ending on the previous day.

The value for ASA Pilots is 119 minutes, while it is zero for everyone else.

S-72711 - ASA - 365 Day Pilot history import

With this new feature, ASAP (ASA Pilots) admins will be able to:
- enter the **Periods** tab and select a period
- select the **Data** button at the bottom right of the screen
- select the import and the file type that will be called "365 Day Pilot History". This should appear at a place first and last in the list if all items are sorted alphanumerically and this is the only entry that starts with a number.
- select the local file to be uploaded.

Note: Different customers have different import types configurations and this information is present in the ASAP's PBSsetting .xml file. This file contains a lot of info file type and info group type (PeriodImportFileType and PeriodImportGroupType).

When we want to import a completely new file type, we also have to update the CreateTables.sql script as shown. Please note the following:
- **Period_RecId:** The period record they are associated with
- **GroupType:** The Type identifier for this group
- **Name:** A descriptive identifier for this import group.

S-72758 - ASA - Pilot WOCL Turn preference configuration

In the ASAP configuration, you can now add a new Award and Avoid Pairing Property and Pairing filter. This is available to all bidders for both the current and default bids.

S-72757 - ASA - WOCL Turn Preference scheduler

For ASA, a new bid/pairing filter is now available: **Award/Avoid Pairings if WOCL Turn**.

The Scheduler will match a pairing against the bid if the pairing has exactly one duty and that duty covers the entire period from 0200 to 0215 Base Time.

Note: WOCL means Window of Circadian Low.

S-72797 - ASA - Pilot - Days Off Before and After CQ rule - Pairing

You can create a new rule for **Days Off Before and After CQ**. This is the Rest Days before CQ (2 Days waivable down to one or zero).

It is similar to the Reserve Days Off Before and After Training rule is applicable to pairing lines and the CQ flag instead of the training flag. There are two parameters:

- Num Days Off Before = 2
- Num Days Off After = 0.

You can create a new waive bid. The syntax is Waive 2 Days Off Before CQ to X. The configuration for ASAP is zero or one.

S-72896 - ASA - Reserve Days Off before and after CQ rule/waive

A new rule and waive bid is available to ASA's configurations. They are:

- **Reserve Days Off Before and After CQ** rule
- **2 Days off Before CQ** waive bid.

The two parameters for the new rule are:

- Num Days Off Before
- Num Days Off After.

The rule is identical to Reserve Days Off Before and After Training rules; however, it will apply to CQ instead of training (Absence Code flags).

S-72897- ASA - Create CQ absence code flag

For ASAP, a new absence code called **FLAG CQ** is available. The new flag shows on the Admin User Interface (UI) only for customers who have a configuration set to show it, as the new flag is not meaningful for most customers. When a customer configures

their Admin UI to show the flag, it shows within the "Additional Parameters" section of the Add/Edit absence code screen and will be labeled as "CQ". Your administrator has the availability to update the flag.

S-73111- ASA - Pilot Pairing import

We have made modifications to the current ASA Cabin pairing import to accommodate ASA Pilots. The current ASA pairing import uses TFP (points) instead of credit, whereas the pilots use traditional credit hours.

All the credit belongs to the current month for carryout pairings if a duty period starts (reports) in the current period. For a duty period that begins in the current period, all that credit belongs to the current plus the "Scheduling Rig" that is presented on the trip level. This rig should be added to the last duty of the trip; however, this shows up in the total and not in the last trip.

This is an example of how the credit would be calculated in a day-by-day picture as:

- 5:40 day 1
- 5:08 day 2
- 7:48 day 3
- 6:38+ 0:11 trip rig on day 4.

The total credit of the trip is 25:25 with the trip rig included in it.

S-68224 - SCX - Scheduler vacation slide

For SCX, the following parameters are now added for the Scheduler handling:

- Pilot/Cabin Use Half Period Sliding
- Pilot/Cabin Half Period Sliding Max Days Past Middle
- Pilot/Cabin Disallow Slides onto Blackout Dates.

Note: Please refer to S-68572 for SCX configuration. The Scheduler needs to handle the various configuration options of SCX and other customers.

The following existing configuration options are not applicable when Use Half Period Sliding is set as True:

- Max Slide Vacation Days
- Allow Slides Grouping

- Vacation Length Factor
- Allow Slides Period Boundary Split
- Allow Slides into Future
- Allow Slides into Past.

S-69077 - SCX - Training GDOs - Scheduler

SCX pilots can bid up to five consecutive GDOs. They must be eligible for training and are in their Early or Due Month (May Go).

To bid for these days, they must be consecutive. GDOs are only to be considered during the Training Award and are not to be exported. These bids are automatically honored for all Early/May Go pilots; therefore, they cannot be given training on those days. A reason is now added if a training pattern cannot be awarded under an award bid due to the pilot's training GDOs.

In addition to this new feature, the following will apply:
- If the crewmember has no Must Go requirements, we will give the reason honored under the Training GDO bid.
- If the crewmember has a Must Go requirement, the denial reason will be "Not Used Due to Must Go Status".

S-68278 - SCX - SOR/TOA Trip Import

This new feature allows for SCX to have pairings where all of the legs are record type 5. Currently, the import fails because we cannot identify equipment classification. We have enhanced the Crew Plan import so if SCX has only one equipment classification, the import will automatically use that equipment classification. SCX only has one equipment classification so this will work for them.

S-69360 - SCX - WebApp Training GDOs

We have configured for SCX the adding of the WebApp function for the Training GDO bid. In S-69359, the Training GDO was added to the bid configuration (CategoryOptions.xml) with Precedence 1. This should be forced to the top of the bid group.

For the Training GDOs, please be aware of the following:
- The days must be consecutive.

- The GDOs will not be restricted to the current active period.
- It must not include any days that the crewmember has a pre-award.

The Scheduler and the back-end translation already have the implementation of the feature. The format of the bid composite is assumed to be a list of dates.

This feature has the possibility to add a Training GDO bid to the training bid group under the Set Condition tab.

S-70267 - SCX - Redeye and charter imports

This new feature allows for the import of charter-designated flights between the flight range of 8000 - 8999. In turn, this allows crewmembers to choose charter flights as a preference.

S-70726 - SCX - SOR/TOA WebApp UI

We have added two new bids available in the WebApp UI for SCX. They can be found in the pairing properties and are available on Award Pairings bids, Avoid Pairings bids, and the Pairing Search tab. These needs bids options are:

- If TOR
- If SOR.

The right side of the Pairing Filter search displays the pairing preferences of SOR and TOA. Click the checkboxes as appropriate:

- For the Pairing Filter/Analyzer, a pairing will match if TOA has at least one leg in the pairing with the TOA identifier.
- For the Filter/Analyzer, a pairing will match if SOR has at least one leg in the pairing with the SOR identifier.

S-70727 - SCX - SOR/TOA trips - Scheduler

There are now two new bids (pairing properties, available on Award and Avoid Pairing bids) available for SCX:

- **If TOA**: A pairing will match if TOA has at least one leg in the pairing has the identifier TOA.
- **If SOR**: A pairing will match if SOR has at least one leg in the pairing has the identifier SOR.

Enhancements

S-58492 - ALL - WebApp - Checkbox default functionality

For all bidders, there are modifications to the default functionality of the checkboxes next to the bid options. These modifications are:

■ If the checkbox is unselected, then when you select the checkbox, it should behave the same as if you click the text.

■ If the checkbox is selected, select a checkbox again to remove the check.

If there is data present in the bid option, you should be able to select or deselect the checkbox.

S-70625 - ASA - Pilot - Allow Pairing Max Days On Waive 6 up to X

The Waive Max Days On to X, which is currently only used in Reserve Bid groups, is configured to be used in a Pairing Bid group for ASA Pilots (ASAP). The enhancements to the pairing Max Days On Rule supports the modified parameter coming from the bid.

MinValue: 7
MaxValue: X

S-70296 - ASA - Add Pattern Bid preference

A Pattern Bid option is now available for the ASA Cabin configuration for both pairing and reserve.

S-71700 - ASA - Make Vacation Any Work for reserve

This enhancement allows for:

■ making Vacation Any Work for reserve bid groups.

■ doing the Day on Adjustment within the Reserve Total Days On Using Credit Proration rule, which ASAP is using.

This enhancement does not include doing the Day Off Adjustment within the Reserve Total Days Off rule. That is done under a separate enhancement.

S-72995 - ASA - Pilot addition of parameter to Rest Before and After Absence Pairing rule

You can modify the **Rest Before and After Absences** rule to add a new parameter called "Training Only". This rule is configurable for ASAP. The parameters are:

- Minutes After - 720
- Minutes Before - 720
- Work for Duty Only - False
- Rest Rules Apply Only - False
- Training Only - True.

For all other customers, Training Only will be set as False.

S-73920 - ASA - Configure for AM/PM Reserves
The POE for the AM/PM Reserves is now available. This is for both pilot and cabin crew's two reserve types of RSA and RSB.

The following apply to each:
- RSA - 0400 - 1600. This is the hidden preference line type (i.e., what the bidder gets if they don't express a preference and unaffected by coverage awarding).
- RSB - 1600 - 0000.

There are two bids for Set Condition for RSA and RSB lines. We are changing the types for any periods that have been prepared, but not yet deactivated (i.e., the current active period and future prepared periods). To use this new configuration, modify the ProrationTableName_[Type] parameters to the Reserve-TotalDaysOff rule.

S-72366 - JZA - Rename Minimum 2 Consecutive Days Off waive
The **Minimum 2 Days Off in a Row** waive is now named **Minimum 2 Days Off After Consecutive Duty** for JZA only using a translation.

S-71273 - MXY - Add Line Check Airmen bid preference option
The Line Check Airmen Bid Preferences (Award/Avoid) can now be added to MXY Pilot bid preferences. This bid preference is in both the current and default bids. You can use the standard Any and Every options:
- **Award bids** - Choice
- **Avoid bids** - Fixed Any.

S-54505 - NKS - Configure for enhanced Unstacking statistics
An enhancement to the Unstacking statistics is implemented to the NKS configuration. For example:
- total number of crewmembers: 289

- pairing lines: 217
- total percentage of pairing lines unstacked: 0.46%
- number of lines with SLG: 21
- number of SLG above 10% threshold: 3
- highest percentage of pairing lines assigned SLG: 15.21%
- CM above the 10% SLG threshold: 77376 (15.21%), 11795 (14.75%), and 69922 (14.29%)
- highest percentage of pairing lines unstacked: 33.33%
- highest CM unstacked: 12424
- maximum Stack Height allowed: 20.

S-72401 - SCX - Modify AIMS Import

Changes were made to SCX's AIM's Absence and History Importer to accommodate the crewmember's equipment. It is now present in field 11 instead of field 38. All other fields after 11 therefore move up one.

The table is an example of how the final output would look like. For cases where the tenth field is "DH" (dead head), there wouldn't be an equipment type.

"738"	Field 11 - Crewmember's equipment
"SY539"	Field 12 - Flight Number
"1"	Field 13 - Leg Sequence Number
"CA"	
"MSP"	Field 15 - Departure Airport
"01/04/22"	
"14:30"	
"01/04/22"	Field 18 - Actual Date of Departure (UTC)
"14:28"	Field 19 - Actual Time of Departure (UTC)
"PVR"	Field 20 - Arrival Airport
"01/04/22"	
"18:57"	
"01/04/22"	Field 23 - Actual Date of Arrival (UTC)
"18:46"	Field 24 - Actual Time of Arrival (UTC)
"4:27"	
"4:18"	Field 26 - Actual Block Time

"01/04/22"	
"13:30"	
"01/04/22"	
"07:30"	
"00:00"	Field 33 - Layover time in HH:MM
"10:30"	
"1"	
"11:06"	
"8:23"	
"1M"	Field 38 - Credit Time by Day (with respect to base time)

Bugs

D-35255 - ALL - WebApp allowing Condition bids below Award bids

An issue is now resolved where the WebApp allows the Set Conditions bid to be placed below an Award bid. This, in turn, causes the run to abort.

Example:

D-38372 - ALL - Scheduler using wrong values when given blank or NaN for Reserve Short/Long Call values

When the Admin User Interface (UI) allows a run to be launched with a Reserve Short Call Type Target Height by Day value blank (which is a separate bug, D-38371), the Scheduler should use zero for that value. Currently, it is using the value from a previous date.

For example, if an Administrator edits a value to be blank, the first image is how it displays.

As soon as the administrator clicked anywhere else on the screen, the box changed to show zero instead of blank. However, if the Scheduler launches the run, the actual parameter still has the previous value. The second image shows the "Stats" report after the run is complete. This issue has been resolved.

```
Reserve
    MaxPasses = 20
    Use = 1
ReserveCallTypeCoverage
                Call    Target      Actual
    Date        Type    Coverage    Coverage
    ---------   ----    --------    --------
    20230501    BAH          5           5
                BPH          3           3
    20230502    BAH                      5
                BPH          2           2
    20230503    BAH          0           5
                BPH          0           2
    20230504    BAH          0           4
                BPH          0           2
    20230505    BAH          0           5
                BPH          0           2
    20230506    BAH          7           7
```

D-38373 - ALL - Down icon in Bid page (current tab)

In the Bids page on the Current tab, the down arrow (in the top tool row) became disabled in certain cases. This is now corrected for all users.

D-39206 - ALL - Admin UI and WebApp mismatch with Forget Line bid

In the WebApp, the Forget Line Bids are not matching those in the Admin UI. This causes the runs to abort. This issue is now resolved.

Example:

WebApp entry

| 99 | Forget Line 89 |

Admin UI display

99.   Forget Line 85

D-38315 - JZA - Unable to extend vacation one day before

When a bidder wants to add an Extension Vacation bid, they are not able to select the day before the start of the vacation. In the example below, the underlined dates are vacation days, and the green dates are the days the bidder can select to extend their vacation. The bidder cannot select May 10, May 17, and May 24, and they would need

to be in green to allow for selection. Also, May 31st has the possibility of extension for the three days in case of JZA.

This bug is now fixed.

The N-PBS Scheduler Quick Reference

The N-PBS Scheduler is the scheduling engine that drives Navtech's preferential bidding system. The N-PBS Scheduler uses the bids created in the N-PBS Bidder to drive the creation of a final crew roster that meets not only as many crewmember preferences as possible, but also meets your airline's targets for crew utilization and open time.

before bidding starts

1. log on

2. prepare a bid period — all bid periods are usually created once a year, and prepared as needed

3. import data — you may also need to update the absences code table, if it has changed

4. activate a bid period — you can only have one active period

5. set up information for the bid period — you can edit
   - information for bidders
   - pairings
   - pre-awarded absences
   - categories of employees
   - employee data
   - interface parameters

6. open bidding — you can view employee bids and monitor activity while bidding is open

7. log off

at the end of bidding

1. log on

2. close bidding — you can refresh pairing and employee data

3. produce a set of runs — runs are based on the setting templates that you create and manage / you can do multiple runs with the same set of data by using different parameters for each run

4. review results, and produce more runs if necessary

5. publish and export your final results

6. log off

Introduction to the N-PBS Scheduler

The N-PBS Scheduler Administrator's Guide explains how to use the N-PBS Scheduler to manage the data and processes involved in creating a schedule that respects crewmember preferences as well as airline targets for work coverage.

Together, the N-PBS Scheduler and the N-PBS Bidder form a Preferential Bidding System (N-PBS) that builds individualized crew schedules based on each crewmember's preferences, including both likes and dislikes for flying, specific pairings, and days off. The bids submitted using the N-PBS Bidder are added to the rules, pairings, and other parameters in the N-PBS Scheduler, and you use all of this information to automatically build the flying schedule for the bid period.

The N-PBS Scheduler considers each crewmember's seniority, language qualifications, and bid when building schedules, and ensures that the final crew roster meets as many crewmember preferences as possible, while also meeting legality and scheduling requirements and the airline's targets for crew utilization and open time. Along with awarded pairings, the N-PBS Bidder provides a Reasons report for each crew member that identifies whether or not each bid preference was fulfilled, and also provides detailed explanations for awards and denials. This Reasons Report can be extremely helpful in minimizing crew inquiries related to schedule awards.

The Reasons Report is the primary tool for effectively managing inquiries from crewmembers regarding unfulfilled bid preferences. See the Reasons Report section for more details.

The N-PBS Scheduler Awarding Process

The N-PBS Bidder is where crewmembers create and submit the bids that are used by the N-PBS Scheduler to create a flying schedule for a bid period. The N-PBS Scheduler begins by building the block of the most senior crewmember and works down through the seniority list until all blocks have been built. To build each block, the N-PBS Scheduler determines which pairings could fulfill a bid preference and also considers whether or not any of the potential pairings fall on a day that has a large number of unassigned pairings. As the N-PBS Scheduler evaluates each bid preference, it may shuffle pairings around on a block, or substitute equivalent pairings, to ensure that as many bid preferences as possible are being met.

Some Processing Notes

- A junior crew member should not be assigned a pairing or day off that a senior member specifically requested and did not receive. However, this rule may be overridden in cases where a senior crewmember must be denied a pairing or day off to ensure block completion -both their own block and that of more junior crewmembers.

- Specific crew member requests that conflict with pre-awards are also denied.

- The N-PBS Scheduler does not attempt an exhaustive search for every bid preference in every bid because the system needs to balance the number of bid preference combinations it attempts against the amount of time taken to generate the schedule. The N-PBS Scheduler does not guarantee the most possible pairings for a single bid preference, although this result is usually achieved.

Depending on the parameters you have set, the N-PBS Scheduler stops adding pairings to a block when the total credit value is above either the minimum credit value or the

threshold credit value of the credit window, even if there are more bid preferences left. The N-PBS Scheduler does not add pairings to a block that conflict with any pre-awarded items. If you set a threshold, the N-PBS Scheduler tries to get every block above the threshold value. However, as long as a block is above the minimum credit value, the N-PBS Scheduler does not go into Denial mode to get the block above the threshold credit value.

You set minimum and target credit values for regular, minimum, and maximum credit windows. If a Crewmember requests a maximum credit block, the N-PBS Scheduler may go into Denial mode if the block is not above the minimum credit for a maximum credit block, even though the block may be above the minimum credit of a minimum or regular credit block.

Administering the N-PBS Scheduler

As an administrator in the N-PBS Scheduler, you can:

- import and edit data, including

  - crew data

  - pairing data

  - historical data

  - carry-ins

  - vacation

  - training

  - leaves of absence

- pre-assign pairings to specific crewmembers

- identify specific crewmembers as ineligible bidders or shadow bidders

- open, monitor, and close bidding

- produce multiple scheduling runs on the same data and evaluate the results

- select and publish a final schedule, and output the final schedule to your crew tracking system

When producing schedule runs, you have a number of features available to you:

- you can create a set of standard templates to base runs on, with different options for target credit windows, minimum and maximum credit windows, legality and buffer parameter values, etc.

Each category is run separately, and you can set parent-child relationships between categories. For example, a parent-child relationship would ensure that all of the IC pairings CA pairings were awarded before an FA run was done.

Parent Runs are not used in all configurations.

Password Reset

> You must register your e-mail address before you can use the Password Reset feature. See Password Reset - Register your e-mail for more information.

1. Select Forgot Password? on the Log In screen.

    Employee Number: [   ]
    Password: [   ]   Forgot Password?

    [Log In *]

    * by Logging In to Navtech PBS you are agreeing to the Terms of Use

2. Enter your employee number and select **E-mail Password**.

    Temporary Password is e-mailed to the registered email address

    Employee Number: [   ]
    [E-mail Password]   [Cancel]

    After you select E-mail Password you see a message confirming that a password was sent.

3. Check your e-mail for a message from **N-PBS-DO-NOT-REPLY@navtech.aero** with a temporary password. Your temporary Password will expire if you do not use it, see below for more information.

```
Dear  Crewmember name

You have submitted a request to Navtech to have your password reset.
Your temporary log in information is:

Employee ID:    employee number
Temporary Password: Xvg6JMYB
Expiry Time: Tue Nov 01 2011 18:08:23 (UTC)

This e-mail is sent by request only: please disregard if you did not request it. If you require further assistance, contact your PBS
Administrator.

Regards,
Navtech PBS
```

4. Select **Cancel** to return to the Log In screen.

5. Enter your employee number and temporary password.

6. Once you have logged in you will be prompted to change your password from the temporary one sent. See Change your Password for more information.

The temporary password sent through e-mail will expire if you do not use it by its expiry time. The expiry time is below the temporary password in the e-mail. If you request a temporary password and do not use it you can use your current password (if you remember it). If you do not use the temporary password before the expiry time you will need to request a new temporary password.

Password Reset - Register your Email

You must register your e-mail address before you can use the Password Reset feature. See Password Reset for more information.

Registering your e-mail address gives the N-PBS system a means to a give you a temporary password if you forget yours.

To register an e-mail address:

1. Log into the system and go to the **Settings** tab.

2. At the bottom of the Settings screen enter the e-mail address that you wish to register.

3. Verify your e-mail address by entering the same e-mail address again.

Register E-mail

Current e-mail address: None

New e-mail address:

Verify e-mail address:

Register E-mail Address

4. Select **Register E-mail Address.**

5. You will receive an e-mail from **N-PBS-DO-NOT-REPLY@navtech.aero** confirming that your e-mail address has been registered. Bidders can change their registered email address at any time from the **Settings** tab.

   Your registered e-mail address will display on the screen beside **Current e-mail address:**.

Browser Information

This section provides general information on supported browser and browser settings. See the documentation provided with each browser for additional details on settings and requirements.

Compatible Browsers

NAVBLUE N-PBS is tested only on the most recent versions of the following browsers:

- Chrome
- MS Edge
- Firefox
- Safari (on Macintosh computers running macOS Catalina)

Browser Settings

NAVBLUE N-PBS requires javascript, pop-up windows and cookies enabled in all browsers. See the browser documentation for more details.

Operating Systems

The N-PBS Admin and Bidder Interfaces are tested on the following operating systems:

- iOS 15.0

- Windows 10

- Catalina

Log In to the N-PBS Scheduler

To log in to the N-PBS Scheduler:

1. Enter your user name and password.

2. Click the Log in button.

   The N-PBS Scheduler displays the Run Manager tab.

Log Out of the N-PBS Scheduler

You can log out of the N-PBS Scheduler even if you have runs queued or running. The N-PBS Scheduler continues to process these runs whether or not you are logged in.

To log out of the N-PBS Scheduler:

1. Click the Logout button.

   The N-PBS Scheduler displays the logout screen, telling you that you have successfully logged out, and provides a link to the login screen.

Interface

The N-PBS Scheduler Interface

The N-PBS Scheduler provides a graphical user interface (GUI) to let you manage your scheduling tasks.

Depending on your connection speed, the first time you switch to a tab may take a few moments while the N-PBS Scheduler renders (or draws) the screen. However, after the first time, you shouldn't notice any delays when switching between tabs.

The N-PBS Scheduler Version Number

The version number indicates what version of the N-PBS Scheduler that you are using. Record the version number and use it when contacting Navtech regarding this product. The version number is always displayed on the bottom right corner of the interface. Also, you can obtain the version number by double-clicking on the Navtech logo located on the top right corner of the interface beside the Logout button.

Set Interface Parameters

You can set the polling time for the run manager , and you can set the maximum size of filtered lists to prevent excessively long lists from being created. Longer lists take more time to display in the N-PBS Scheduler and the N-PBS Bidder.

To set the interface parameters:

1. Switch to the General tab.

2. Switch to the Interface tab, if it isn't currently displayed.

3. Make changes to the interface parameters.

- the polling time for the run manager tells the N-PBS Scheduler how often, in minutes, to check and update the status of any in-process and completed runs

- the maximum list size identifies the maximum number of items that can be returned in a filtered list, such as pairings; if the number of items exceeds this value, the N-PBS Scheduler displays a dialog instructing the user to narrow their search criteria further

4. Select Save to save your changes.

You can reset the parameters to their default values by clicking on the Reset button.

Paging

On some screens you can use the paging option instead of the scroll bars to view information. Paging converts a long list of items into a series of pages that you can navigate through using the buttons shown in the graphic below. You can also use the Up and Down arrow keys on your keyboard to move between the items on the screen and the Page Up and Page Down keys to move between pages.

A	check box enables the paging feature	**C**	number of items on page and total number of item
B	move back one page or move to first page	**D**	move forward one page or move to last page

Select Items in Lists

The N-PBS Scheduler lets you select and deselect items by clicking on them. This process is called toggling, and means that you don't have to hold down additional control keys to select and deselect multiple items in a list.

Navblue logo. AN AIRBUS COMPANY

Before Bidding Starts

Prepare a Bid Period

Preparing a bid period is the first step in activating the next bid period. Preparing a period does two important things:

- it separates the prepared bid period's data from the active bid period's data

- it prepares the bid period so that you can import data into it

Until you prepare a bid period, the data in the active bid period and in all other unprepared periods is the same. When you prepare a bid period, you unlink the prepared bid period from the active period, so changes made to either bid period's data doesn't affect the other bid period. Once the data is unlinked, you can import data into the prepared bid period without affecting the active bid period.

To prepare a bid period:

1. Switch to the Periods tab.

2. Select the period you want to prepare.

3. Click Prepare.

   The N-PBS Scheduler displays a check mark in the Prepared column when the period is prepared.

Import Data

The N-PBS Scheduler supports Gzip file type imports.

Follow the procedures listed below to import training data. Training is not available in all configurations.

Current and historical data needs to be imported for each bid period. It is best to import your data before you activate a bid period, but you may need to refresh this data after bidding has closed and before you begin producing runs. You can only import data into prepared or active bid periods.

You need to import the following data for each period:

- employee data

- pairings data

- history data

- Rule Exceptions - if applicable

- training patterns and requirements - if applicable

Hotel data is available in the N-PBS Scheduler. If hotel data needs to be changed, contact your account manager to arrange for an update. You can import these files one at a time, or all at once. Depending on the system that the data is coming from, some data types may be combined,

such as history pairing and history data. In these cases, you may only need to import one or two files.

N You need to provide historical data for the N-PBS Scheduler to work with. The N-PBS Scheduler does not use data from the previous bid period as historical data, since the planned schedule can differ significantly from the actual schedule.

To import data for a period:

1. Switch to the **Periods** tab.

2. Select the prepared/active period you want to import data for.

3. Click **Data**. *The Data for [Bid Period] page appears.*

4. Select the type of data you are importing.

✳ Data types vary by configuration. The file type selected from the drop-down menu must match the file type you are importing.

5. Click Browse and then navigate to and select the data file.

6. If you want to import more than one type of data, or more than one data file of a particular type, click Add Another File.

7. Repeat Steps 4 to 6 until you have selected all of the data files you want to import.

When multiple files are imported at the same time they are grouped together in to one import. You must re-import all files if one fails to import. If necessary, warning or error messages are shown after the import process is complete.

8. Click Import. The N-PBS Scheduler warns you that any existing data for each category is going to be overwritten.

9. Click OK.

A message informs you that the files have been imported successfully, and changes the corresponding data block(s) at the top of the page to green. Information about the imported data appears in the green data block.

10. Click Confirm to finalize the import.

11. Click Done to return to the Periods tab.

Logs Screen

The Logs Screen allows you to keep track of changes to system data. Using the Service drop down menu you can search and see changes made to the Bid Manager, Config, ClassBid, ClassBidWeb, Crew, Import, Period, Pairings, Run Manager and WebApp data. WebApp data refers to when a user synchronizes data or submits a bid from the Web App bidder interface. You can also see the administrator that made the changes, the date and time of the change, and the period.

The information below describes the features and search criteria of the log screen. You can use any or all of the search criteria when searching for change logs. If you do not select any field and hit the details button all change logs will be returned.

A **Service:** type of data Bid Manager, Config, ClassBid, ClassBidWeb, Crew, Import, Period, Pairings, Run Manager and WebApp

Admin ID: Administrator that made the changes

D Details: select this button to search for changes

Limit: you can select the number of change logs you want to appear

B Starting and Ending: date and time of the change

E This window shows the change logs

C Period: period of the data change

Description: description of the change

F Page feature: you can use the arrows to see the next page if your search returns more logs than can fit on the screen. You can turn off this feature with the checkbox beside the arrows.

Set the Active Bid Period

You need to set an active bid period so that bidders can log in and submit their bids for the correct bid period. Remember that many of the changes that you make elsewhere in the system are specific to the active bid period.

N Only prepared bid periods can be activated.
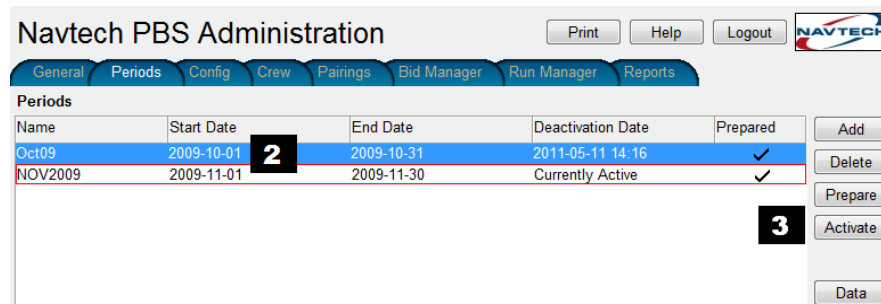
Once you change the active period, the previous active period becomes historical and can no longer be changed. You can still do runs on inactive periods, but you can't publish completed runs or make other changes to the data.

To set the active bid period:

1. Switch to the **Periods** tab.

2. Select the bid period you want as the active bid period. If you haven't created the bid period yet, see Prepare a Bid Period for details.

3. Click **Activate**.

   The N-PBS Scheduler draws a red line around the selected bid period to indicate that it is active.

The start and end dates identify the beginning and end of the bid period. The deactivation date identifies the date and time that the bid period was deactivated (when the next bid period was activated). When you view data from a deactivated period, the data from this date and time is displayed.

Set Up General Information
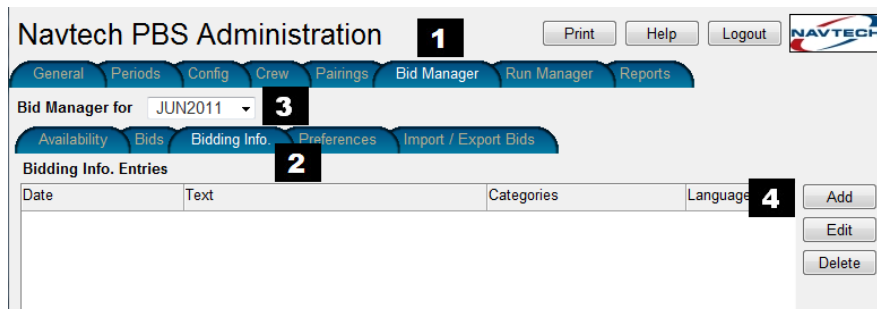
N The Add Bidding Info. Entry pane contains an HTML editor. See <u>HTML Editor</u> for more information.

The information that appears when crewmembers first log in to the N-PBS Bidder is taken from the information you set up on the Bid Manager / Bidding Info. tab. You need to provide separate information for each category of bidders. This general information about the bid period can include when bidding opens and closes, bulletins, and training details.

To add general information for a bid period:

1. Switch to the **Bid Manager** tab.

2. Switch to the **Bidding Info. tab**, if it isn't currently displayed.

3. Select the bid period that the information applies to.

4. Click **Add**. The Add Bidding Info. Entry screen is displayed.

5. Select a category or categories

6. Select **All** to post a message to all categories

7. Click inside the pane to type or paste a message. *You can type information directly into the text box, or copy and paste prepared text from another text program.* The Add Bidding Info. Entry pane contains an HTML editor. See HTML Editor for more information.

You can't copy and paste directly from Microsoft Word because Word adds extra formatting information to the text when you copy it from within the Word document. However, you can save a Word document as a text (.txt) file and open it in another package, such as Notepad, and copy and paste from there.

8. When you have finished making changes, click **Save**. The Bidding Info. Entries tab displays your information.

9. If necessary, repeat this procedure to post separate messages to different categories.

Edit General Information

The Add Bidding Info. Entry pane contains an HTML editor. See HTML Editor for more information.

To edit general information for a bid period:

1. Switch to the **Bid Manager** tab.

2. Switch to the **Bidding Info.** tab, if it isn't currently displayed.

3. Select the bid period that the information applies to.

4. Select the information that you want to edit or delete.

5. Click **Edit** to change the selected information or **Delete** to remove the selected information. The Add Bidding Info. Entry screen is displayed.

6. Select a category or categories.

   • select all to post a message to all categories

   • select Categories to post a message to the selected category or categories

   • select Combo to post a message to a combination of categories

7. Click inside the pane to type or paste a message. The Add Bidding Info. Entry pane contains an HTML editor. See HTML Editor for more information.

You can type information directly into the text box, or copy and paste prepared text from another text program.

You can't copy and paste directly from Microsoft Word because Word adds extra formatting information to the text when you copy it from within the Word document. However, you can save a Word document as a text (.txt) file and open it in another package, such as Notepad, and copy and paste from there.

8. When you have finished making changes, click **Save**. The Bidding Info. Entries tab displays your information.

9. Repeat this procedure for each category that you need to edit general information for.

HTML Editor

The HTML editor allows you to add more formatting to messages on the Info tab.

You can hover the pointer over a menu option for a brief description of what each button does.

Options

- copy, Cut and Paste text

- undo and redo

- align text - left, center, right or justify

- decrease or increase indent text

- bold, Italics, Underline or Strikethrough text

- change font or highlight text colors

- insert a link

- add bullets and numbering

- insert a table

You can't copy and paste directly from Microsoft Word because Word adds extra formatting information to the text when you copy it from within the Word document. However, you can save a Word document as a text (.txt) file and open it in another package, such as Notepad, and copy and paste from there.

Locations

Locations Tab

The Locations tab allows you the ability add, edit and delete locations directly from the interface. Along with this functionality, Administrators can edit daylight savings time (DST) along with Latitude and Longitude information. Import and export functionality remains but the .csv file has been reformatted to follow the same layout of the Locations Details screen. Only locations used by the system (active locations), are stored, thus making the data set smaller to maintain. An active location is any location linked to any data in the database in the present period. Active locations are defined as any base primary location/co-location, pairing leg departure and arrival locations, pairing duty layover locations, training pattern event locations, crewmember restricted locations, activity Start or End locations (note that Absence and Reserve Line activities currently have start and end locations stored in the database that are linked to location records).

No Invalidation of Runs

When locations are edited, either directly through the UI or through the location import, no runs will be invalidated.

If Administrators suspect that new location details will alter run results they should reimport pairing information and relaunch runs.

Valid Location Requirements for Other Functionality

The system will disallow the following (with appropriate error messages):

- Import of Pairing with duty layover location, or pairing leg arrival or departure location, not present in the database.

- Import of Training Pattern with Event location not present in the database.

- Import or manual addition of Crewmember restricted Location not present in the database.

- Creation or editing of Base to have primary location or co-location not present in the database.

User Log Details

The Logs screen shows a message for every manual Add, Edit or Delete of a location. It specifies the location name, but does not specify exactly what data changed. In the case of a bulk edit, 1 separate user log entry is created for each location.

The Logs screen shows messages when a location file import is done

Location Details

The Locations Details sub tab is located in the Locations tab. The image below shows the table with location data loaded. Each column in the table is sortable; Administrators can click on a column header to sort data. A black arrow indicates which column the data is sorted by and by what direction. Descriptions of the data in the table are below the image.

Name:

3-letter airport code, e.g. JFK or SYD

Latitude and Longitude:

Negative latitude means South, positive means North

Negative longitude means East, positive means West

A number like 40.384 means 40 degrees, 38.4 minutes. Therefore it is not a strict decimal number (since 40 degrees 38.4 minutes is equal to 40.64 degrees). For example:

JFK: 40.384 Latitude, 73.467 Longitude

Means: 40 degrees 38.4 minutes North, 73 degrees 46.7 minutes West

SYD: -33.568 Latitude, -151.106 Longitude

Means: 33 degrees 56.8 minutes South, 151 degrees 10.6 minutes East

Latitude can range from -90.000 to 90.000

Longitude can range from -180.000 to 180.000

UTC Offset:

This is the offset from UTC (GMT) when the location is not in daylight savings.

Negative means behind (West), e.g. JFK is -5, SYD is 10

Navtech N-PBS only supports whole hour or half hour offsets (e.g. 10, or 10.5 or 10:30)

Navtech N-PBS supports values ranging from -12 to 14 (because there are some locations officially between 12 and 14).

DST Changes:

DST changes occur at a specific date and time (e.g. 2012-03-11 02:00) and can be either ON (switching DST on) or OFF (switching DST off). DST information is contained in the last 3 columns. The middle column is the current year, the first DST column shows the DST changes before the current year and the last column shows future DST changes.

Location Details

Each location shows on a single row:

Latitude and Longitude shown in the format described in the Latitude and Longitude section above.

UTC Offset shown as either a whole number or a number with .5 for locations with half hour offsets. Negative means behind (West).

DST Information – last 3 columns

DST switch ON is represented by white sun icon left to the date time

DST switch OFF is represented by black sun icon left to the date time

DST date/times show in the format as above (e.g. 2013-03-10 02:00).

The table has space for up to 2 DST changes before the current year, up to 2 changes in the current year, and up to 2 changes in the following year.

The DST fields (within the 6 DST columns) must adhere to DST field validation

DST Field Validation

Navtech N-PBS will validate information when entered into the system, validation occurs when editing through the interface using Add or Edit or when importing a locations file:

For the current year and the year after the current year (2011 and 2012 in the above example), and for each year within the exported CSV file, the values in the 2 columns **FIRST** and **SECOND** must adhere to the following rules:

- Each of the columns (**FIRST** and **SECOND**, under the given year) must contain either a valid date within that year, or must be blank.

- If a location has 2 DST changes in the year, the date in the column **FIRST** must be chronologically earlier than the date in the column **SECOND**. Therefore southern hemisphere locations will show the spring switch OFF in column FIRST, and the fall switch ON in column **SECOND**.

- If a location has just 1 DST change in this year, it must show in the column **FIRST**, regardless of the actual date within the year, and the column **SECOND** must be blank.

- If a location has zero DST changes in this year, both columns must be blank.

For the 2 columns BEFORE the current year on the UI (e.g. PRE-2011 in the above example), the columns **SECOND LAST** and **LAST** must adhere to the following rules:

- Each of the columns (**SECOND LAST** and **LAST**) must contain either a valid date before the current year (e.g. 2011 or before in the above image), or must be blank.

- Note that these 2 DST changes will usually be in the year immediately before the current year (e.g. 2011 in the above image), but they do not have to be. (Locations which have 0 or 1 DST changes in 2011 would instead show the most recent 2 DST changes, which may come from earlier years).

- If a location has more than 2 DST changes present in the database before the current year, then only the most recent 2 will be shown.

- If a location has at least 2 DST changes before the current year, the date in the column **SECOND LAST** must be chronologically earlier than the date in the column **LAST**.

- If a location has just 1 DST change (in the database) before the current year, it must show in the column called **LAST** (with the column called **SECOND LAST** being blank).

Add / Edit Location Details

The Add/Edit Locations screen allows you to add or edit DST and Latitude/Longitude information for a location. You can also bulk edit DST information for multiple locations.

Name:

Available when adding and is uneditable when bulk editing

Is uneditable when editing a single location

If bulk editing, the label is greyed out and the content is blank

Validation is performed when adding a location, the system will check to see if the location already exists.

The system will inform the administrator if the location exists

Latitude and Longitude:

The default latitude and longitude is 0.000 for each new location

These values can be edited, if the value is not in the correct format or is not within the valid range, the following error message shows:

Must be a value between -90.000 and 90.000 (for latitude)

Must be a value between 180.000 and 180.000 (for longitude)

When an acceptable new value is entered, the additional description (e.g. 14 degrees, 25.4 minutes South) is updated to reflect the new value. Note that this description is not editable directly.

Latitude and Longitude is not available when bulk editing. The label is greyed out and content (and additional description) is blank.

UTC Offset:

The Drop-down list has values of -12, -11.30, -11, -10:30, …etc.…, 12:30, 13, 13:30, 14

The default value is 0:0 for each new location

When bulk editing, label is greyed out and content is blank.

DST Details:

The Date and Time fields are consistent with similar fields on the UI. In particular, the time field allows both keyboard editing and increment/decrement of minutes and hours.

When adding or editing a single location, the first drop-down offers the following choices:

- None

- DST Switch ON

- DST Switch OFF

The default value is None for each new location

Bulk editing

The first drop-down offers the following choices:

- Do not set

- None

- DST Switch ON

- DST Switch OFF

When bulk editing, for each separate DST record (e.g. 2013 FIRST), if all the selected locations currently have the same value, the values are populated except if all are blank   then first drop down will default to **None**, otherwise the first drop-down defaults to **Do not set** and the remaining date/time boxes are blank.

Whenever the first drop-down is set to **None**, the remaining date/time boxes are blank.

When the first drop-down is set to **DST Switch ON** or **DST Switch OFF**, the year values will be available as follows:

- For the 2 fixed years, Year will be set to that year, and cannot be changed.

- For the 2 records for before current year, Year will be initialized to the previous year, but can be changed to any value between 2000 and that year (e.g. between 2000 and 2012).

Whenever the first drop-down is changed to **DST Switch ON** or **DST Switch OFF**, from either **None** or **Do not set**, the date/time fields will initialize as follows:

- Month is blank and will show a drop-down (you must select a month)

- Day is blank and will show a drop-down (you must select a day)

- Year is set (or initialized) to the appropriate year (as defined above)

- Time will initialize to 02:00

Note that if **DST Switch ON** is changed to **DST Switch OFF**, or vice versa, the date/time fields will not change.

The system will refuse to save the changes (with an appropriate error message) if the DST fields do not conform exactly to the DST Field Validation. In the case of a bulk edit, the validity of the new values will be enforced separately for each location using existing values for any records where **Do not set** is selected.

Editing DST Before the Current Year

This section describes the how the system processes changes to saved locations if either of the 2 DST values before the current year have been edited.

In the case of a bulk edit, this functionality is applied separately to each individual location.

If the new values include 2 actual DST changes before the current year (i.e. **SECOND LAST** and **LAST** are both non-empty), then:

The 2 new values become the last 2 changes in the database before the current year.

- DST changes already present in the database before the current year will be deleted if they are either:

- equal to or after the date/time of the new SECOND LAST change, or

- in the same year as BOTH the new values (i.e. the 2 new values are both in the same year, and so is the pre-existing value), or

- earlier in the same year as the new SECOND LAST change and of the same DST switch type (ON or OFF)

DST changes already present in the database before the current year that are not deleted based on the above criteria remain unchanged. This allows for older values (which could sometimes affect old runs) to remain in the database.

For Example:

Location ABC has the following DST changes already in the database:

- 2010-03-10 02:00 switch ON

- 2010-10-05 02:00 switch OFF

- 2011-03-09 02:00 switch ON

- 2011-10-04 02:00 switch OFF

- 2012-03-01 02:00 switch ON

- 2012-09-01 02:00 switch OFF

2013 is now the current year, location ABC is being edited, and the new values for BEFORE 2013 are as follows:

- 2012-03-08 02:00 switch ON (SECOND LAST)

- 2012-10-03 02:00 switch OFF (LAST)

Of the 6 previous records:

- 2012-09-01 02:00 switch OFF is removed because it is after the new SECOND LAST value (2012-03-08 02:00)

- 2012-03-01 02:00 switch ON is removed because it is in the same year as BOTH the new changes.

- The previous 4 records remain in the system.

Therefore the new DST records (before 2013) for location ABC would be:

- 2010-03-10 02:00 switch ON

- 2010-10-05 02:00 switch OFF

- 2011-03-09 02:00 switch ON

- 2011-10-04 02:00 switch OFF

- 2012-03-08 02:00 switch ON

- 2012-10-03 02:00 switch OFF

If the new values include only 1 actual DST change before the anchor year (i.e. SECOND LAST is empty and LAST is non-empty), then:

The value provided will become the last change in the database before the anchor year

All other changes previously in the database before the current year will be removed

For example:

Location ABC has the following DST changes already in the database:

- 2010-03-10 02:00 switch ON

- 2010-10-05 02:00 switch OFF

- 2011-03-09 02:00 switch ON

- 2011-10-04 02:00 switch OFF

- 2012-03-01 02:00 switch ON

- 2012-09-01 02:00 switch OFF

2013 is now the current year, location ABC is being edited, and the new values for BEFORE 2013 are as follows:

blank (SECOND LAST)

- 2012-10-03 02:00 switch OFF (LAST)

All old records are removed, therefore the new DST records (before 2013) for location ABC would be:

- 2012-10-03 02:00 switch OFF

If the new values include no DST changes before the current year (i.e. SECOND LAST and LAST are both empty), then all changes previously in the database before the current year will be removed.

Import/Export Location Details

The Import/Export subtab in the Locations tab allows you to import and export the Locations Details file, see Locations Details for more information. You can edit or add new locations and change times associated with pairings according to daylight saving times.
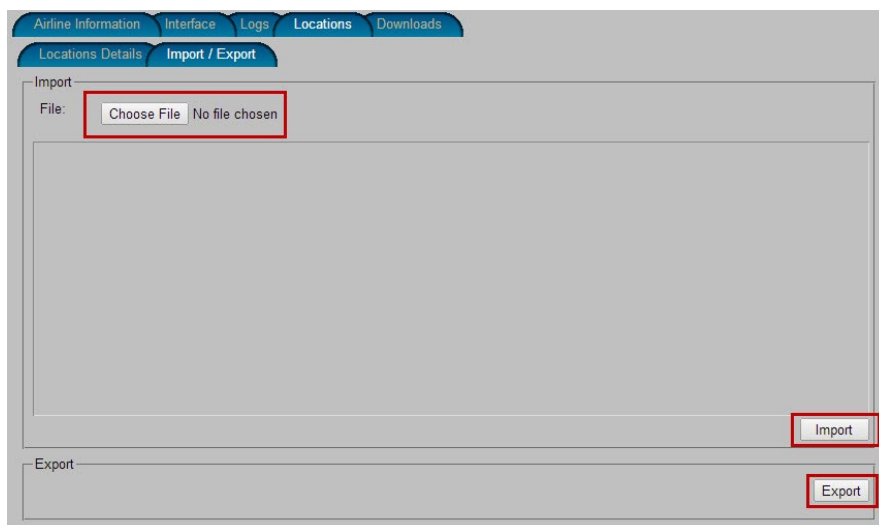
The **Location DST - Import/Export** sub tab, inside the **Locations** tab, contains buttons for **Choose File** (browse), **Import** and **Export**.

CSV File Format

The CSV file format is similar to the table seen on the **Locations Details** sub tab, with 1 line per location, but includes all DST records in the database, with 2 columns per year (with no concept of a current year).

A Locations CSV file always includes a header row, and can contain any number of years (including zero years).

The following is an example of a header row (with years 2010 to 2014) together with a corresponding location row:

```
Name,Lat,Long,UTC Offset,2010 FIRST,2010 SECOND,2011
FIRST,2011 SECOND,2012 FIRST,2012 SECOND,2013 FIRST,2013
SECOND,2014 FIRST,2014 SECOND
ERT,-14.254,23.169,-10,,,,,2012-03-10-0200-ON,2012-11-03-
0200-OFF, 2013-03-09-0200-ON,2013-11-09-0200-OFF,,
```

The header row must contain a continuous range of years. For example, if some locations in the database have DST records for 2010, and some have DST records for 2014, but none have DST records for 2011, then the columns 2011 FIRST and 2011 SECOND must still appear in the CSV file, even though they will be blank for every location.

The DST fields within each subsequent row must be within the same year as the corresponding field in the header row.

The DST field values use the format 2012-03-10-0200-ON:

- Either ON or OFF is appended to distinguish between DST switching ON and OFF

Import Functionality

When a Location file is imported:

The import will fail (with an appropriate error message) in the following cases:

- if the header row is not present in the valid format (described above)

- if any record has any field which is not in the expected format (3 letters for Name, 11.345 for Lat/Long (after zero-padding, see below), -10.5 for UTC Offset, 2012-03-10-0200-ON for DST fields)

- if any DST field is not in the correct year corresponding to the header row

- if any DST fields do not conform exactly to the DST Field Rules

Latitude and Longitude will be zero-padded to be in the required format. For example, if the import file contains 5.4, this will be changed to 5.400 before being imported. (This in turn actually means 5 degrees and 40.0 minutes).

Any Location not present in the file will be deleted from the system if it is not an active location. If it is an active location, then it will not be deleted, and an error message will show in the import report stating that it could not be deleted.

Any new Location in the file will be added to the system, with the specified details.

Other Locations will be updated with any changes made to Latitude, Longitude, UTC Offset and DST.

For each location being updated, all pre-existing DST records are removed, and the new set of DST records are created to match the values in the file.

When an import has completed:

Before the changes are made to the database, the import report shows on the screen, and the user is given the option to **Continue** or **Cancel**.

If they choose to **Cancel**, no changes are made.

If they choose to Continue:

- Changes are then made to the database

- The user is presented with a **Confirm** button, which must be clicked.

- Changes will then be immediately reflected within the table on the main Locations tab.

Bidding

Open Bidding

These instructions apply to training categories as well. Training is not available in all configurations.

Once you have imported your data and updated the general information for a bid period, you need to open bidding so that crewmembers can submit their bid preferences for the bid period. Remember that Crewmembers can submit Default bids at any time, but you need to open bidding so they can submit their Current bids.

You may need to edit employee or pairing data, or make other changes to data or configuration before opening bidding. See the Occasional Administrative Tasks (OAT) section. The OAT section explains non-standard or occasional tasks that may need to be performed. Depending on your environment and processes, these tasks may need to be performed more or less frequently.

You can switch to the Reports tab to view a report of all the pairings for this bid period, if you want to double-check your data before opening the bidding to crewmembers.

To open bidding for all for categories:

1. Switch to the **Bid Manager** tab.

2. Switch to the **Availability** tab, if it isn't currently displayed.

3. Switch to the **Bidding Schedule** sub-tab.

3. Click the **Open** button. The N-PBS Scheduler asks you to confirm that you want to open all of the categories.

4. Click **OK**. All categories in the Locked column are moved to the Open column and are available to crewmembers when they log in to the N-PBS Bidder.

Open Bidding for a Single Category

These instructions apply to training categories as well. Training is not available in all configurations.

Once you have imported your data and updated the general information for a bid period, you need to open bidding so that Crewmembers can submit their bid preferences for the bid period. Remember that Crewmembers can submit Default bids at any time, but you need to open bidding so they can submit their Current bids.

You may need to edit employee or pairing data, or make other changes to data or configuration before opening bidding. See the Occasional Administrative Tasks (OAT) section. The OAT section explains non-standard or occasional tasks that may need to be performed. Depending on your environment and processes, these tasks may need to be performed more or less frequently.

You can switch to the Reports tab to view a report of all the pairings for this bid period, if you want to double-check your data before opening the bidding to crewmembers.

To open bidding for a single category:

1. Switch to the **Bid Manager** tab.

2. Switch to the **Availability** tab, if it isn't currently displayed.

3. Switch to the **Bidding Schedule** sub-tab

4. From the **Closed** column, select the category you want to open for bidding. The selected category is highlighted blue.

5. Move the category to the **Open** column by clicking the **<<** button. The N-PBS Scheduler asks you to confirm that you want to open the category.

6. Click **OK**

The selected category is moved to the Open column and is available to crewmembers when they log in to the N-PBS Bidder.

Close Bidding for All Categories

Once the time available for bidding has elapsed, you need to close the bidding. You can close a single category, or close all categories at the same time.

To close bidding for all categories:

1. Switch to the **Bid Manager** tab.

2. Switch to the **Availability** tab, if it isn't currently displayed.

3. Switch to the **Bidding Schedule** sub-tab.

4. Click the **Close** button. The N-PBS Scheduler asks you to confirm that you want to lock all of the categories.

5. Click **OK**.

   All categories are moved from the Open column to the Locked column. When Crewmembers log in to the N-PBS Bidder, they can view all of the available

information, but they can't change or update any bids for this bid period. However, bidders can change or update their regular default bids.

Close Bidding for a Single Category

Once the time available for bidding has elapsed, you need to close the bidding. You can close a single category, or close all categories at the same time.

To close bidding for a single category:

1. Switch to the **Bid Manager** tab.

2. Switch to the **Availability** tab, if it isn't currently displayed.

3. Switch to the Bidding Schedule sub-tab.

4. From the **Open** column, select the category you want to close bidding for.

5. Move it to the **Closed** column by clicking the **>>** button. The N-PBS Scheduler asks you to confirm that you want to lock the category.

6. Click **OK**.

The selected category is moved to the Closed column.

When Bidding is Closed

Once bidding is closed a crewmember can still log in and submit Default bids. Any default bid submitted by a crewmember in the closed category is not used in runs for the current bid period. Those Default bids will be used after bidding is reopened and runs are completed for the next bid period.
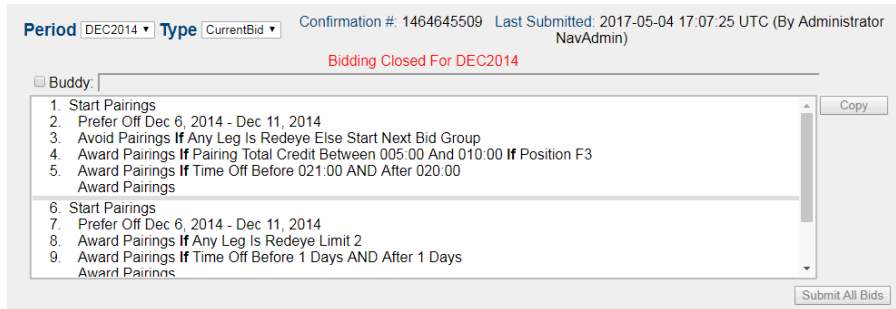
Web N-PBS Bidder

If a crewmember logs into the Web N-PBS Bidder when bidding is closed they will see a Bidding Closed message on the interface when they select the Current Tab. A bidder

cannot edit their Current bid when bidding is closed, buttons to submit and edit bids will either be disabled or will not appear on the screen. A bidder can copy their Current bid.

N-PBS Web App

A crewmember can edit both their Current and Default bid in the Web App when bidding is closed. However, only the Default bid can be submitted. If a bidder submits a bid when bidding is closed for their category they will see the following message.


This message indicates that their Default bid was submitted and that their Current bid was not. A bidder can save any changes made to their Current bid to use in the next bid period. The Current bid must be submitted once you reopen bidding.

Close/Lock Bidding

If you close bidding the system is still accessible to bidders. They can log into the system and make changes to their Default bid and search for pairings.

If you lock bidding, the system is no longer accessible to bidders. They cannot log in to the system or access any of its functions.

A message is displayed to the bidder if they attempt to log in when bidding is locked. From the Availability tab, you can customize the message displayed to bidders. The screenshot below shows what a bidder will see when they attempt to log in.
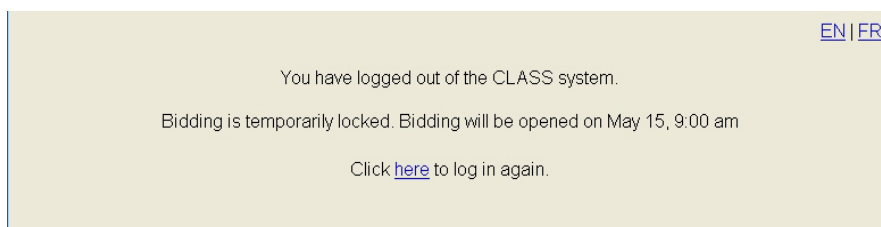
Lock Bidding

When you lock bidding you deny bidders access to all aspects of the N-PBS Bidder. This is useful when you wish to perform maintenance or update pairing information. You can post a message to bidders informing them why and how long they will be locked out of the N-PBS Bidder.

To lock bidding:

1. Switch to the **Bid Manager** tab.

2. Switch to the **Availability** tab, if it isn't currently displayed.

3. Switch to the **Bidding Status** tab, if it isn't currently displayed.

4. Click the **Lock** button. The N-PBS Scheduler asks you to confirm that you want to lock all of the categories.

5. Click **OK**.

   The N-PBS Bidder is locked and all bidders are denied access to the system. If a bidder attempts to log in to the N-PBS Bidder the message that you typed into the text box below the button is displayed.

Post a Message to the Locked Out Bidders

To post a message to locked out bidders:

1. Switch to the Bid Manager tab.

2. Switch to the Availability tab, if it isn't currently displayed.

3. Click inside the text field and enter text.

4. Click Save.

   The text entered is only available to bidders when the system is locked .

   Reset removes text recently entered, any saved text will not be removed

   Clear removes all saved and recently entered text

Schedule the Open and Close of Bidding

These instructions apply to training categories as well. Training is not available in all configurations.

Once you have imported your data and updated the general information for a bid period, you can automate the open and closing of bidding time by designating a

schedule. Remember that Crewmembers can submit Default bids at any time, but bidding must be open to submit their Current bids.

> You may need to edit employee or pairing data, or make other changes to data or configuration before opening bidding. See the Occasional Administrative Tasks (OAT) section. The OAT section explains non-standard or occasional tasks that may need to be performed. Depending on your environment and processes, these tasks may need to be performed more or less frequently.
>
> You can switch to the Reports tab to view a report of all the pairings for this bid period, if you want to double-check your data before opening the bidding to crewmembers.
>
> Manual opening and closing of bidding supersedes the schedule functionality. You can manually open or close bidding, but changing bid status overrides any scheduled billing already set.

To open bidding for a single category:

1. Switch to the **Bid Manager** tab.

2. Switch to the **Availability** tab, if it isn't currently displayed.

3. Switch to the **Bidding Schedule** sub-tab.

4. From the **Select Categories** Drop-down list, select **ALL OR By Base** to use all categories or select the particular Base you want to schedule. By default, all categories are used.

5. Designate the **Open At** values using the appropriate drop-down boxes and fields.

6. Designate the **Close At** values using the appropriate drop-down boxes and fields.

The **Open At** and **Close At** settings contain a **Manually** check box. Ensure this is selected to override the scheduled times. You can deselect it to resume the schedule. If you are setting a schedule, this box must be

unchecked before you can make changes. You must click **Save** for changes to take effect.

7. Designate the **Close At** values using the appropriate drop-down boxes and fields.

8. If you have selected a particular Base, change its respective category values in the table below using the same process.

9. Click **Save**.

Unlock Bidding

When you unlock bidding you return bidder's access to the N-PBS Bidder.

To unlock bidding:

1. Switch to the **Bid Manager** tab.

2. Switch to the **Availability** tab, if it isn't currently displayed.

3. Switch to the **Bidding Schedule** sub-tab.

4. Click the **Unlock** button. The N-PBS Scheduler asks you to confirm that you want to lock all of the categories.

5. Click **OK**.

   The N-PBS Bidder is unlocked and all bidders now have access to the system.

Edit Existing Bid Periods

You can edit a future bid period to adjust the name, start, or end dates of the period. You can only edit future bid periods. Current or previous bid periods cannot be edited.

To edit a future bid period:

1. Switch to the **Periods** tab.

2. Select the bid period you want to edit.

3. Click the **Edit** button. The N-PBS Scheduler displays the Edit Period screen.

4. Make changes to the bid period options.

5. Click **Save**.

    The N-PBS Scheduler updates the bid period with your changes.

View Bidding Information Reports

Bids Report

The Bids report displays a list of the latest bids for a selected bid period. You can view the latest bids for all crewmembers, all crewmembers in a specific category, or for a single crewmember. This report is usually used for archiving purposes, if you want a record of the bids for a bid period.

A bids report is not connected to a specific run, but it is connected to a specific bid period.

To view the bids report:

1. Switch to the **Reports** tab.

2. Switch to the **Bids Report** tab, if it isn't currently displayed.

3. Set the options for the bids report.

    ●   select all employees, or a specific crewmember, or a specific category to generate a bids report for

- show ineligible bidders displays crewmembers that have submitted bids for this bid period, but are currently flagged as ineligible bidders

- sort by seniority or employee number determines how the bids report is organized, if you are generating a bids report for all employees

4. Click the **Generate Reports** button. The N-PBS Scheduler generates the report and displays the list of bids in a separate window.

5. Click **Close** to return to the **Bids Report** tab.

Pairings Report

The Pairings report displays a list of all the pairings for a selected bid period, for all categories or for a specific category. This report lets you find the pairing numbers for pairings you want to view or manage.

To view the pairings report:

1. Switch to the **Reports** tab.

2. Switch to the **Pairings Report** tab, if it isn't currently displayed.

3. Select the category you want to view pairings for. If you want to view pairings for all categories, select ALL from the drop-down list.

4. Click the **Generate Report** button. The N-PBS Scheduler generates the report and displays the list of pairings in a separate window.

5. Click **Close** to return to the **Pairings Report** tab.

You can also view this report from the Pairings tab.

View the Dynamic Status Report

Crew Report

The Crew report displays a list of all the Crewmembers for a selected bid period, for all categories or for a specific category. This report lets you find the employee numbers for Crewmembers you want to view or manage.

To view the crew report:

1. Switch to the **Reports** tab.

2. Switch to the **Crew Report** tab, if it isn't currently displayed.

3. Select the category you want to view Crewmembers for. If you want to view Crewmembers for all categories, select **ALL** from the drop-down list.

4. Select the sort criteria you want the report to use: seniority or employee number.

5. Click the **Generate Report** button. The N-PBS Scheduler generates the report and displays the list of Crewmembers in a separate window.

6. Click **Close** to return to the **Crew Report** tab.

> [N] You can also view this report from the Crew tab.

View a Crewmember's Bids

You can view all the Current and Default bids a Crewmember has submitted for a bid period, including the date and confirmation number of each submission. You need to know the employee number of the Crewmember whose bids you want to view.

To view the bids for a specific Crewmember:

1. Switch to the **Bid Manager** tab.

2. Switch to the **Bids** tab, if it isn't currently displayed.

3. Select the bid period you want to view Crewmember bids for.

4. Enter the employee number of the Crewmember whose bids you want to view. If you don't know the employee number, you can view a report of all the Crewmembers for a selected bid period.

5. Click the **List** button. The N-PBS Scheduler displays a list of the bid revisions this Crewmember has submitted.

The time associated with each confirmation number is in GMT, not in the Crewmember's local base time or the administrator's local time.

6. View the bid you are interested in.

- you can select the category of bids to view, if the Crewmember submits bids for more than one category

- you can select a specific bid revision to view by clicking on it

- you can see any buddies listed in Buddies field. Buddy bidding is not available in all configurations

After Bidding Closes

Parent Runs

Ancestor / Parent / Child Runs

You can add and remove dependencies from a category when you add or edit the category. An ancestor or parent run identifies the category that this category is dependent on.

In order to run a category with a parent, you need to have completed parent runs available that the run for this category incorporates. If you haven't run the parent category, you can't run the associated category. For example, most FA runs require an IC run and all Reserve Runs require a Pairing Run (consecutive reserve only).

When launching a reserve run a valid pairing run from the same category must be selected as the parent

Ancestor, Parent and Child information is displayed in the Run Detail Pane. See Run Detail Pane for more information.

Pairing Reserve Run Separation

Pairing and Reserve runs are launched and run separately. The runs are tied together by category. You cannot launch a reserve run until a valid pairing run has been completed for the associated category.

A pairing run cannot be exported without a complete valid reserve run, and a reserve run cannot be launched until a valid pairing run from the same category has been completed.

The reserve run is the child to the pairing run and the pairing is the ancestor to the reserve run

Launch a Reserve Run

Use the same procedure to launch a reserve run as you would any other type of run. Select Reserve as the run type, see step 6 of [Set Up and Launch a Run](#) for instructions. Select the parent run after reserve has been selected as the Run Type.

Manage Run Templates

Most administrators spend most of their time in the N-PBS Scheduler working with templates and runs. You can set up multiple templates that let you quickly launch runs using standard parameter options each bid period.

You can add, edit, and delete templates on the Scheduler tab of the Run Manager. The run templates set up standard run parameters that you can use repeatedly, but you can also modify specific parameters when you launch a run.

Templates are listed in non-case-sensitive alphabetical order.

> **N** Run templates are not specific to a bid period. Any templates that you create are always available, regardless of the active bid period.

To create a new template:

1. Switch to the **Run Manager** tab.

2. Switch to the **Scheduler** tab if it isn't currently displayed.

3. Click **Add**.

4. Select the run type using the drop down menu

5. Enter a name for the template and click OK.

> You can use any character in a template name except slash (/) and backslash (\).

6. Adjust the run parameters.

    See Available Run Parameters for details on each parameter setting.

If the category you select has a parent, the Parent Runs options appear. See Parent Run Parameters for details.

7. Click **Save**.

The N-PBS Scheduler saves your template and displays the Scheduler tab with your new template added to the list.

Edit Run Templates

Most administrators spend most of their time in the N-PBS Scheduler working with templates and runs. You can set up multiple templates that let you quickly launch runs using standard parameter options each bid period.

You can add, edit, and delete templates on the Scheduler tab of the Run Manager. The run templates set up standard run parameters that you can use repeatedly, but you can also modify specific parameters when you launch a run.

Templates are listed in non-case-sensitive alphabetical order.

Run templates are not specific to a bid period. Any templates that you create are always available, regardless of the active bid period.

Edit Templates

To edit an existing template:

1. Switch to the **Run Manager** tab.

2. Switch to the **Scheduler** tab, if it isn't currently displayed.

3. Select a template and click **Edit**. The Edit Run Template page appears.

4. Change any run parameters, including the template name. See <u>Available Run Parameters</u> for details on each parameter setting.

5. Click Save. The N-PBS Scheduler saves your changes and displays the Scheduler tab.

Delete Templates

To delete a template:

1. Switch to the **Run Manager** tab.

2. Switch to the **Scheduler** tab, if it isn't currently displayed.

3. Select a run template.

4. Click **Delete**. The N-PBS Scheduler asks you to confirm that you want to delete the selected run template.

5. Click **OK**. The N-PBS Scheduler deletes the selected template and displays the Scheduler tab with the template removed from the list.

Available Run Parameters

You can set these parameters for both run templates and queued runs.

Template Parameters	
Name	- the name of the template _new is appended to the template name to create the name of any run launched using the template

Category (runs only)	● the category being run

Scheduler Parameters	
Max Iterations	● the maximum number of pairings the N-PBS Scheduler is allowed to try awarding a block ● the N-PBS Scheduler divides this number by the maximum possible completion attempts that can be made to determine the maximum number per completion attempt ● when the N-PBS Scheduler reaches the maximum number, it stops the current completion attempt and moves on to the next completion attempt for this block ● minimum value: 1 000 000 ● maximum value: 99 999 999

Scheduler Parameters

	• suggested value: 5 000 000 to 10 000 000
Max SLG Iterations	• the maximum number of pairings the N-PBS Scheduler is allowed to try awarding an SLG block • the N-PBS Scheduler divides this number by the maximum possible completion attempts that can be made to determine the maximum number per completion attempt • when the N-PBS Scheduler reaches the maximum number, it stops the current completion attempt and moves on to the next completion attempt for this block • minimum value:2 000 000 • maximum value: 20 000 000 • default value: 4 000 000

Scheduler Parameters

Max Pairing Lines	• Bidder is shadow on every day of the period and all awards are shadows. Does not Count. • Bidder is shadow on some days of the period (not all), but all of their pairing awards are shadow. Does not count. • Bidder is shadow on some days of the period (not all), they get a mixture of shadow and non-shadow pairing awards. Counts toward Max Pairing Lines. • Bidder is shadow on some days of the period (not all), all of their awards are non-shadow. Counts toward Max Pairing Lines. This will be configured for ASH only.
Max Swap Depth	• the maximum length of a swap chain consisting of pairings being moved among various blocks and open pairings • minimum value: 0 (zero); no swapping is performed if set to 0 and schedule quality will be lower • maximum value: 5001000 • suggested value: 250

Scheduler Parameters

Max Reserves	● the maximum number of reserve blocks that the N-PBS Scheduler is allowed to award
	● if the maximum number of reserve blocks has been awarded, Crewmembers that the N-PBS Scheduler can't create a block for are given empty blocks
	● if this run template is not used for parent runs, set the maximum number of reserves to more than your total number of Crewmembers
	● if this run template is used for parent runs where Crewmembers may need to be moved to the associated child run (i.e. ICs that may need to be bumped to the FA run), only set the maximum number of reserves you need to accommodate Crewmembers who specifically bid for a reserve block; any Crewmembers who don't receive a block are automatically moved to the child run and receive a block from that run
Min Open Credit	● set a minimum open credit to be used by the N-PBS Scheduler. The value set here will be the minimum allowable credit left in open time at the end of the run.

Scheduler Parameters

Max Followed By Time	● the maximum amount of time between pairings for the pairings to be considered followed by pairings ● the minimum time between followed by pairings cannot be adjusted
Use Language Assignment	● check box that tells the N-PBS Scheduler to use language assignments and restrictions when awarding pairings ● this option is checked by default, and should remain checked; it should only be unchecked if you are certain that you want no language processing to occur
Max Stat Day Bank	● maximum amount of Stat Day Bank days that are awarded per bid period.
Use Only Sys-Gen Bids	● check box that tells the N-PBS Scheduler to ignore any bids submitted by Crew members and do a run using only the default bid preferences (Award Pairings and Award Line Reserve)

Scheduler Parameters

	● a Use Only Sys-Gen Bids run is usually done for analysis purposes, and provides feasibility information as well as a baseline for comparison with runs using Crewmember bids

Credit Window Parameters

Normal	● the minimum (low) credit value, maximum (high) credit value, and desired average (threshold) credit value for all standard Crewmember blocks
Max Credit	● the minimum (low) credit value, maximum (high) credit value, and desired average (threshold) credit value for all maximum credit Crewmember blocks
Min Credit	● the minimum (low) credit value and maximum (high) credit value for all minimum credit Crewmember blocks

Credit Window Parameters

Max Min Credit Honored	● the maximum number of Crewmembers that can bid for and receive a minimum credit block ● any Crewmembers above this number receive a block within the regular credit window ● suggested value: more than the number of Crewmembers, unless you want a specific restriction
Max Max Credit Honored	● the maximum number of Crewmembers that can bid for and receive a maximum credit block ● any Crewmembers above this number receive a block within the regular credit window ● suggested value: more than the number of Crewmembers, unless you want a specific restriction
Reduced Lower Limit (RLL)	● the minimum (low) credit value, maximum (high) credit value and threshold for all RLL credit Crewmember blocks ● the High value cannot be edited, it is directly tied into the Normal high credit value, and always has the exact same value

Credit Window Parameters	
Max RLL Lines	• the maximum number of Crewmembers that can bid for and receive a RLL pairing block • a value of zero means that no RLL processing will take place
RLL Cutoff (Eligible Bidders)	• indicates the cutoff person - all bidders below this number will have their RLL bids ignored • Senior people down to and including the cutoff person can be awarded a RLL block • the cutoff person is identified by counting all eligible bidders in seniority order - a bidder flagged as Ineligible is not counted, a reduced-block bidder is counted but will not receive a RLL block
Normal Reduced Block	• the minimum (low) credit value, maximum (high) credit value, and desired average (threshold) credit value for all Normal Reduced Block Crewmembers
Min Credit Reduced Block	• the minimum (low) credit value, maximum (high) credit value, and desired average (threshold) credit value for all Min Credit Reduced Block Crew members

Credit Window Parameters

Max Credit Reduced Block	● the minimum (low) credit value, maximum (high) credit value, and desired average (threshold) credit value for all Max Credit Reduced Block Crew members
Fill to Threshold with Award Pairings	● check box that tells the N-PBS Scheduler to try and fill blocks to the threshold value, rather than the minimum value ● blocks that reach the minimum value but not the threshold value may have shuffling performed on them to get them above the threshold (if Shuffle to Threshold is turned on) ● as long as the block is above the minimum value, Denial mode will not be triggered to get the block above the threshold value if this option is turned on ● Check fill to Threshold if Shuffle to Threshold is checked

UnStacking Parameters

Use Unstacking	● check box that tells the N-PBS Scheduler to force pairings onto blocks as a result of stacks

Credit Window Parameters

	● if this option is turned off, the N-PBS Scheduler considers stack height when awarding pairings, but won't force pairings on to blocks
Max Passes	● the maximum number of passes through the data that will be attempted by the system in order to achieve acceptable results ● this number is dependent on the size of the base and the parameters set for stack height, threshold, etc. ● the first pass is usually the slowest, and subsequent passes are much quicker than the first pass ● suggested value: 20 to 30
Max Stack Height	● maximum allowable number of mutually exclusive open pairings in any given critical period, at the end of the run ● this value is also used as the maximum number of mutually exclusive open pairings requiring any specific language (language pairing stack height), and the maximum number of total lines-worth of open pairings requiring any specific language (language credit stack height)

Credit Window Parameters

	● minimum value: 2 ● suggested values: ● 4 for categories with less than 300 people ● 8 for categories with 500 to 1000 people ● 12 for categories with more than 1000 people ● larger max stack height values result in faster runs, but more pairings left in open time
Priority Stack Date	● check box that lets you set the triggered stack that is forced onto blocks first, before any other triggered stacks ● the priority stack date only affects the order that pairings get forced onto blocks after the stack associated with that date is triggered ● this option helps to ensure that seniority for a specific date isn't violated by unstacking

Credit Window Parameters

Min Open Credit Percent	● minimum allowable open credit (TFP) at the end of the run ● this value is a percentage of the original open credit (TFP) at the start of the run
Min Open Credit Time	● minimum allowable open credit (TFP) at the end of the run ● this value is a percentage of the original open credit (TFP) at the start of the run

The Max Passes value limits the number of attempts the N-PBS Scheduler makes to satisfy the other run parameters.

If the N-PBS Scheduler can meet all of your run parameters (i.e. max stack height), it stops after the first successful pass. Once the N-PBS Scheduler reaches the maximu m number of passes, it completes the run and returns the results from the pass that came closest to succeeding.

Language Unstacking Parameters

Language	• a list of languages that use max stack height values that are different from the standard max stack height • languages listed here are usually those languages that have either a very small number or a very large number of qualified Crewmembers, and need an adjusted max stack height in order to be processed most effectively by the N-PBS Scheduler
Max Stack Height By Language	• maximum allowable number of mutually exclusive open pairings requiring the selected language in any given critical period, at the end of the run
Disallow language credit unstacking for all languages	• select to turn off credit unstacking for all languages

Language Unstacking Parameters	
Disallow language credit unstacking for selected languages	● select to turn off credit unstacking for a language or languages selected using the drop-down menu below the radio button

Suggested Formula for Setting AM/PM/ER Reserve Parameters

To calculate your reserve parameters, multiply the number of reserve line holders by the maximum reserve days an FA can be awarded, divide this number by the number of days in the period and subtract 25 percent from this total.

The formula can be represented by R * D / P - 25%

You will need to use this calculation twice, once for AM/PM coverage, and once for ER coverage.

Values

● R = the number of reserve line holders (AM/PM or ER)

● D = number of reserve days a FA can be awarded (15 AM/PM days and 3 ER days)

● P = number of days in the period (30 or 31)

● 25% = 10% for pre-assigned activities and 15% for system flexibility

Pairing Rule Parameters FAR 117_11

Enforce Max Block From Exceptions Table	● when checked, the N-PBS Scheduler will enforce the max flight time from the Exceptions Table - a pairing that is subject to an exception value and has been constructed illegally to exceed that exception value will be illegal to award in N-PBS ● when unchecked, the N-PBS Scheduler will not enforce the max flight time from the Exceptions Table - a pairing that is subject to an exception value and has been constructed illegally to exceed that exception value will be legal to award in N-PBS
Enforce Max Block For Augmented Duties	● when checked, the N-PBS Scheduler will enforce the max flight time from the Exceptions Table - a pairing that has been constructed to exceed the maximum on an augmented duty will be illegal to award in N-PBS ● when unchecked, the N-PBS Scheduler will not enforce the max flight time from the Exceptions Table - a pairing that has been constructed to exceed the maximum on an augmented duty will be legal to award in N-PBS

Suggested Formula for Setting Reserve Parameters

To calculate your reserve parameters, multiply the number of reserve line holders by the maximum reserve days an FA can be awarded, divide this number by the number of days in the period and subtract 25 percent from this total.

The formula can be represented by R * D / P - 25%

You will need to use this calculation twice, once for AM/PM coverage, and once for ER coverage.

Values

- R = the number of reserve line holders (AM/PM or ER)

- D = number of reserve days a FA can be awarded (15 AM/PM days and 3 ER days)

- P = number of days in the period (30 or 31)

- 25% = 10% for pre-assigned activities and 15% for system flexibility

Reserve Parameters	
Weekday Minimum / Maximum	• the minimum and maximum default values for weekday reserves
AM/PM/ER Min and Max Reserves Per Day	• minimum and maximum AM/PM/ER

Reserve Parameters	
	reserves per day
Weekend Minimum / Maximum	● the minimum and maximum default values for weekend reserves
Priority Stack Date	● check box that lets you set the triggered stack that is forced onto blocks first, before any other triggered stacks ● the priority stack

Reserve Parameters	
	date only affects the order that pairings get forced onto blocks after the stack associated with that date is triggered ● this option helps to ensure that seniority for a specific date isn't violated by unstacking
Use Unstacking	● check box that tells the N-PBS Scheduler to

Reserve Parameters	
	force pairings onto blocks as a result of stacks ● if this option is turned off, the N-PBS Scheduler considers stack height when awarding pairings, but won't force pairings on to blockslines
Unstacking Method	● Stack Legal Combos or

Reserve Parameters	
	• Individual Stacks
Max Passes	• the maximum number of passes through the data that will be attempted by the system in order to achieve acceptable results • this number is dependent on the size of the base and the

Reserve Parameters	
	parameters set for stack height, threshold, etc. • the first pass is usually the slowest, and subsequent passes are much quicker than the first pass • suggested value: 20 to 30
Customized Min and Max Reserves Per Day	• minimum and maximum reserves per day that are

Reserve Parameters	
	different from the default values • the minimum and maximum reserves can be customized for each day in the bid period
Number of Day Off Blocks	• maximum number of day off blocks allowed in a bid period
Number of Reserve Days in a Row	• minimum and maximum

Reserve Parameters	
	reserves days in a row
Number of Days Off in a Row	● minimum number of reserve days off in a row

Parent Run Parameters	
Reserves	● a value used to increase the minimum number of reserve blocks assigned to members of the parent category; if the number of reserve blocks assigned by the parent run is less than this number, the N-PBS Scheduler assigns

	additional reserve blocks to the most senior available parent category Crewmembers, before launching the run ● if the N-PBS Scheduler can't find enough ICs without a block to assign additional reserve blocks to, it dumps the pairings awarded to the most junior ICs into open time and awards them a reserve block instead
Run	● the parent run whose data is used as part of this run

You can only have one parent for a run. However, depending on how your categories are configured, you can select a parent run that has a parent run of its own. For example, if you need to create a Captain-First Officer-Flight Attendant chain, the Flight Attendant run can have a First Officer parent run that has a Captain parent run associated with it, creating a chain with three links. You can only have one parent for a run. However, depending on how your categories are configured, you can select a parent run that has a parent run of its own. For example, if you need to create a Captain-First Officer-Flight Attendant chain, the Flight Attendant run can have a First Officer parent run that has a

Captain parent run associated with it, creating a chain with three links.

Call Types Parameters

Use - select the checkbox inside the name of the call type to award the call type in a run. Once Use is selected, the fields in the pane become active.

Target Height - enter a number in the Weekday and Weekend field and select the Apply Defaults button. This automatically adds the number to the date below based on whether it is a weekend or not. Awards will not exceed the number you have chosen.

Available Training Run Parameters

You can set these parameters for both run templates and queued runs.

Template Parameters

Name	- the name of the template _new is appended to the template name to create the name of any run launched using the template
Category (runs only)	the category being run

Run Parameters	
Use Only Sys-Gen Bids	● check box that tells the N-PBS Scheduler to ignore any bids submitted by Crewmembers and do a run using only the default bid preferences ● a Use Only Sys-Gen Bids run is usually done for analysis purposes, and provides feasibility information as well as a baseline for comparison with runs using Crewmember bids
Do Junior Assigning	● The default is set to on. If turned off the junior assign flag is ignored on training patterns
Minimum Percentage of May Go's	● This value ranges from 0 to 100%, with no decimal places. This value represents the number of crewmembers flagged as May Go that must be awarded a training pattern.

Available Event Run Parameters

You can set these parameters for both run templates and queued runs.

Template Parameters

Name	• the name of the template • _new is appended to the template name to create the name of any run launched using the template
Category (runs only)	• the category being run

Run Parameters

Use Only Sys-Gen Bids	• check box that tells the N-PBS Scheduler to ignore any bids submitted by Crewmembers and do a run using only the default bid preferences • a Use Only Sys-Gen Bids run is usually done for analysis purposes, and provides feasibility information as well as a baseline for comparison with runs using Crewmember bids
Do Junior Assigning	• The default is set to on. If turned off the junior assign flag is ignored on event patterns

Available Line Bidding Run Parameters

You can set these parameters for both run templates and queued runs.

Template and Run Parameters

Run Type	● select the type of run - Lines is the only option
Template Name	● the name of the template

Run Parameters

Use Only Sys-Gen Bids	● check box that tells the N-PBS Scheduler to ignore any bids submitted by Crewmembers and do a run using only the default bid preferences ● a Use Only Sys-Gen Bids run is usually done for analysis purposes, and provides feasibility information as well as a baseline for comparison with runs using Crewmember bids
Template	● select a saved run template to use
Group	● select the category to use

Run Name	● give the run a unique name

Credit Windows

You can set up three types of credit windows to let crew members bid for maximum and minimum credit blocks. The maximum and minimum credit windows are based on the normal credit window, so you need to set them up carefully.

Normal Credit Window

The normal credit window identifies your full credit window, including both the maximum and minimum credit window boundaries.

- set the Low value to your minimum credit lower boundary
- set the High value to your maximum credit upper boundary
- set the threshold halfway between these two values

Maximum Credit Window

The maximum credit window identifies the most credit that crewmembers can bid for. These settings allow the N-PBS Bidder to fill a crewmember's block with as much credit as possible.

- set the Low value approximately 10 hours below your maximum credit upper boundary
- set the High value to the same value as the normal High value
- set the threshold three or four hours below the High value

Minimum Credit Value

The minimum credit value identifies the least credit that crewmembers can bid for. These settings allow the N-PBS Bidder to fill a crewmember's block with as little credit as possible.

- set the Low value to the same value as the normal Low value
- set the High value approximately 10 hours above your minimum credit lower boundary

The Normal and Max Credit high settings are the same, and the Normal and Min Credit low settings are the same. Make sure that your credit window settings meet these criteria.

Manage Average Line Values (ALVs)

ALVs are a standard line value used for prorated VTS codes. The VTS codes are automatically set to 1/(number of days in the bid period) of the AVL (1/30 or 1/31). You can view and edit the ALVs for each bid period.

Edit the ALVs

To edit ALVs:

1. Switch to the **Config** tab.

2. Switch to the **ALVs** tab, if it isn't currently displayed.

3. Click the **Edit** button.

4. Make changes to the ALVs associated with each category. You can change the ALVs for one or multiple categories at the same time.

5. Click the **Save** button to save your changes to the ALVs.

Rule Editor
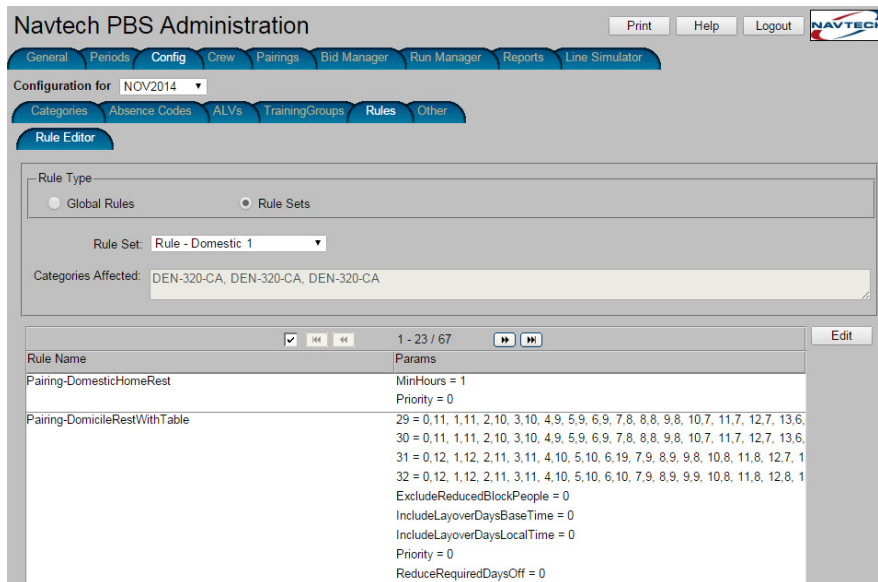
The rule editor gives you the ability to edit rule parameters. You cannot edit waive rules or parameters that are set when you launch a run. The un-editable options are grayed out on the rules editor and a message above the parameter indicates why it cannot be edited. You can edit system-wide Global Rules or Rules for a particular rule set configured on your system. This includes training rules if you have the training module configured.

The Rule Editor is available in the Rules sub-tab in the Config tab.

See Edit a Rule for instructions on editing a rule.

Logs Screen

All changes to Rules are logged and can be viewed on the [Logs](#) file screen under Config on the Service filter.

Edit a Rule

All rules are available for selection, however all or certain parameters won't be available for edit. You cannot edit parameters set on the Run Parameter screen or rules that can be waived by a crewmember through their bid.

To edit a rule.

1. Select the rule type, global rules or rule sets. If you select Rule Sets go to step 2, if you select Global Rules go to step 3.

2. Select the rule set from the drop-down list. Once a rule set has been selected the Categories Affected (A) box automatically populates with the categories that use the rule set.

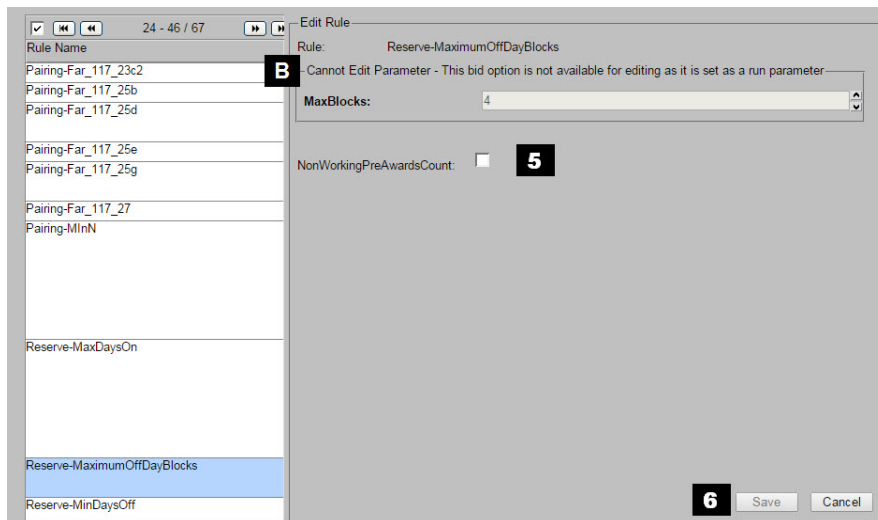3. Click on the rule you want to edit. Once selected it will be highlighted blue.

4. Click **Edit**, the edit rule panel slides out.

5. Make changes you require to the rule parameters. Parameters that cannot be edited are grayed out with a message (B) stating why it cannot be edited.

6. Click Save to complete the changes or Cancel to return the s. Parammain Rule Editor screen.

Set Up and Launch Runs

You can launch multiple runs with the same set of data, using different parameters for each run. These multiple runs let you compare the results of specific parameter changes, and let you select a run to publish that best meets your airline goals and your crewmembers' work preferences.

To launch a run:

1. Switch to the **Run Manager** tab.

2. Switch to the **Scheduler** tab, if it isn't currently displayed.

3. Make sure that the bid period is correct. **The bid period is automatically set to the active bid period. If you need to work with another bid period, you can change the bid period using the drop-down list at the top of the Run Manager tab.**

4. Select the template you want to base the run on.

5. Click **Launch Run**.

The Add Run to Queue screen opens

6. Use the dropdown menu and select the Run Type.

7. Use the dropdown menu and select the Template.

8. Use the dropdown menu and select the Category (group)

9. Enter a name for your run. The N-PBS Scheduler displays the run parameters.

You can use any character in a run name except slash (/) and backslash (\).

10. Make any appropriate modifications to the parameters before launching the run:

11. Click **Save** to launch the run

The N-PBS Scheduler adds the run to the Queued Runs pane, and launches the run as soon as system resources are available. The N-PBS Scheduler displays the status of the run as it progresses.

When the run is complete, it is removed from the queue and appears on the Completed tab.

The parent run list only appears if the category requires a parent. If you set a parent for the category, you need to select a queued or completed parent run to use with this run. Make sure you've launched the necessary parent runs before launching a run that requires a parent.

The N-PBS Scheduler won't launch a run until all of the parent runs for it are complete. The queue status indicates that the run is waiting for a parent run to be completed.

The N-PBS Scheduler checks to make sure that you've selected a category for the run, and won't let you launch the run until a category is selected.

A Note About Eligible and Ineligible Bidders

The N-PBS Scheduler considers any Crewmember who has submitted a Current or Default bid a bidder. Bidders can be eligible or ineligible.

Eligible bidders are awarded a block, and ineligible bidders are not awarded a block of any type.

Any Crewmember who is eligible to bid but has not clicked the Submit All button to submit a Current or Default bid is automatically given the standard system-generated default bid. All crewmembers are processed in seniority order.

Manage the Queue

The queue shows the status of all queued and in progress (running) runs. You can add runs to the queue and CLASS™ launches them (in the order they are listed) as soon as system resources become available for each run.

The Available N-PBS number identifies the resources available for your runs and gives an indication of how many runs can be launched at the same time.

Refreshing the Queue

You can update the list of runs in the queue by clicking the Refresh button.

Stopping and Deleting Runs in the Queue

You can stop and delete runs in the queue.

Stopping Runs

You can select a launched run and stop it.

- stopped runs are removed from the queue immediately

- stopped runs with no completed passes are removed from the queue and the associated files are deleted as soon as the current crewmember has finished processing

- stopped runs with at least one completed pass are moved to the Completed Runs tab as soon as the current crewmember has finished processing; the run is marked with (Stopped) in the Elapsed Time column

To stop a run in the queue:

1. Select a launched run to stop.

2. Click Stop.

Deleting Runs

You can select a queued or launched run and delete it.

- unlaunched runs are removed from the queue immediately

- launched runs are removed from the queue immediately, and the associated files
  are deleted as soon as the current crewmember has finished processing

To delete a run in the queue:

1. Select a run to delete.

2. Click Delete.

Run Queue Status and N-PBS Status Messages

The Status, N-PBS Status, and Progress columns display information on the status of in
progress runs. The following table lists the options for the Status and PBSStatus
columns.

Status Column	
Status	Definition

Queued	the run has been added to the queue, but has not started processing yet
Running	the run is now in progress, and cannot be changed
Stop	the run has been stopped, and the scheduler is finishing the current crewmember before moving the run to the Completed Runs tab

N-PBS Status Column

Status	Definition
Loading Data	the scheduler is loading run data, by category
Scheduling	the scheduler is processing the run
Exporting Data	the scheduler is saving the results of the run

Stopping		the scheduler has finished processing the current crewmember and is saving the results of the run

Status Column

The Progress column is related to the PBSStatus column and provides extra information, such as the type of data being imported, or the bidder currently being processed. The following table lists the options for the Progress column, and the associated values for the Status and PBSStatus columns.

Status Column	PBSStatus Column	Progress Column
Running	Loading Data	Could not Load Configuration Loading Data Loading initial data

Status Column	PBSStatus Column	Progress Column
		Primary LineHolders
		Find Parent Associations
		ParentRun LineHolders
		Primary Activities
		ParentRun Activities
		Primary Awards
		ParentRun Awards
		Transfer pairings
		Person Instances
		Restrictions
		Finding Duplicates
		Data load complete
		Could not Load Data
		Scheduler Setup Failed

Status Column	PBSStatus Column	Progress Column
		Customer Specific Options
Running	Scheduling	Scheduler Setup
		Setup
		Starting Scheduler
		Pass # Person Index/Out of Total
		Reason Person Index
Running	Exporting Data	Incomplete Award
		Statistics
		Awards
		Normal Awards
		Pre-Awards
		Incomplete Awards
		Generating Reasons

Status Column	PBSStatus Column	Progress Column
		Saving Reasons

Status Column PBSStatus

The word "primary" in the progress column always refers to the current category, never the parent category. The parent category is identified separately.

The following table provides a more detailed explanation of each of the possible progress messages. Messages referring to "parent" only appear if the run involves a category that has a parent category associated with it.

Progress Column	Explanation
Configuration	loads information on bases and hotels

Could not Load Configuration	configuration data could not be loaded; run fails
Loading Data	loads information on crewmembers, pairings, and pre-awards
Loading initial data	loads the active period information and prepares for loading run-specific data
Find Parent Associations	locates all data for the associated parent run
Primary LineHolders	loads all data for the crewmembers in the category if the parent run is merged with this run, loads data for the crewmembers in the parent run category
ParentRun LineHolders	loads all data for the crewmembers in the parent run category, for non-merged parent runs
Primary Activities	loads all activities for the category, including pairings, reserves, and absences

ParentRun Activities	loads all activities for the associated parent run, including trips pairings, reserves, and absences
Primary Awards	loads pre-awards for the category
ParentRun Awards	loads pre-awards for the associated parent category
Transfer Pairings	loads historical pairings for crewmembers who have switched categories since the last bid period
Person Instances	for a merged run, determines which crewmembers need to be awarded a block in this run
Restrictions	loads all data related to location, equipment, and position restrictions
Finding Duplicates	for a merged run, finds all crewmembers who are in both categories and selects the appropriate bid to keep
Data load complete	all data has been successfully loaded

Could not Load Data	data could not be loaded, run fails
Scheduler Setup Failed	rules, options, or run-specific parameters could not be loaded, run fails
Customer Specific Options	performs data manipulation to support customer-specific options
Scheduler Setup	initializes the Scheduler
Setup	builds the pairings matrix from Never Allowed POD and pairwise illegalities data
Starting Scheduler	starts building lines from the loaded data
Pass # Person Index/Out of Total [Pass 1 (147/589)	identifies the pass and crewmember the Scheduler is currently building a block for the pass number always appears first, and the current crewmember being generated and the total number of crewmembers, in brackets, appears second

Reason Person Index [Reason (147.589)	generates reasons for each award the current crewmember being generated and total number of crewmembers appears in brackets
Statistics	saves all statistics for this run
Awards	starts saving award data to the database
Normal Awards	saves all awards
Pre-Awards	saves all pre-awards and historical data that may have been updated by this run
Incomplete Awards	saves all incomplete awards, such as GDOs and open block holders, to the database
Generating Reasons	gathers all reasons-related data
Saving Reasons	saves all reasons-related data to the database

Launch Child Runs

The Launch Child button allows you start a new run using the selected run as the parent.

To launch a child:

1. Switch to the **Run Manager** tab.

2. Switch to the **Completed** tab, if it isn't currently displayed.

3. Make sure that the bid period is correct. The bid period is automatically set to the active bid period. If you need to work with another bid period, you can change the bid period using the drop-down list at the top of the Run Manager tab.

4. Select the completed run that you want to use as the parent.

5. Click the **Launch Child** button.

   The Add Run to Queue screen opens with the Parent Runs section open.

6. Use the drop down menu and select the Run Type. The Run Type defaults to the child of the run selected in step 4. You can edit the Run Type, but if you change the Run Type the Parent Runs section is removed from the screen.

7. Use the drop down menu and select the Template. The Template will default to Copy of the run selected in step 4.

8. Use the drop down menu and select the Category (group). The Group defaults to the selected run

9. Enter a name for your run. The name will default to the name of the run selected in step 4.

> **N** You can use any character in a run name except slash (/) and backslash (\).

10. Select the Parent Run if multiple Parent Runs are listed.

11. Make any appropriate modifications to the parameters before launching the run:

12. Click **Save** to launch the run

    The N-PBS Scheduler adds the run to the **Queued Runs** pane, and launches the run as soon as system resources are available. The N-PBS Scheduler displays the status of the run as it progresses.

    When the run is complete, it is removed from the queue and appears on the **Completed** tab.

> **N** The parent run list only appears if the category requires a parent. If you set a parent for the category, you need to select a queued or completed

parent run to use with this run. Make sure you've launched the necessary parent runs before launching a run that requires a parent.

The N-PBS Scheduler won't launch a run until all of the parent runs for it are complete. The queue status indicates that the run is waiting for a parent run to be completed.

The N-PBS Scheduler checks to make sure that you've selected a category for the run, and won't let you launch the run until a category is selected.

Set Up and Launch Runs

The Relaunch button allows you start a new run using the same set of data and parameters based off of a completed run. This allows you use the completed run as template instead of using a template from the Scheduler tab.

To relaunch a run:

1. Switch to the Run Manager tab.

2. Switch to the Completed tab, if it isn't currently displayed.

3. Make sure that the bid period is correct. The bid period is automatically set to the active bid period. If you need to work with another bid period, you can change the bid period using the drop-down list at the top of the Run Manager tab.

4. Select the completed run that you want to base the new run on.

5. Click the **Relaunch** button.

   The Add Run to Queue screen opens with the same run parameters as the selected run.

6. Use the drop down menu and select the Run Type. The Run Type defaults to the same type as run the selected in step 4.

7. Use the drop down menu and select the Template. The Template will default to Copy of the run selected in step 4.

8. Use the drop down menu and select the Category (group). The Group defaults to the selected run

9. Enter a name for your run. The name defaults to the name of the run selected in step 4.

> **N** You can use any character in a run name except slash (/) and backslash (\).

10. Make any appropriate modifications to the parameters before launching the run:

11. Click Save to launch the run

    The N-PBS Scheduler adds the run to the Queued Runs pane, and launches the run as soon as system resources are available. The N-PBS Scheduler displays the status of the run as it progresses.

    When the run is complete, it is removed from the queue and appears on the **Completed** tab.

> **N** The parent run list only appears if the category requires a parent. If you set a parent for the category, you need to select a queued or completed parent run to use with this run. Make sure you've launched the necessary parent runs before launching a run that requires a parent.

The N-PBS Scheduler won't launch a run until all of the parent runs for it are complete. The queue status indicates that the run is waiting for a parent run to be completed.

The N-PBS Scheduler checks to make sure that you've selected a category for the run, and won't let you launch the run until a category is selected.

View Completed Runs

Once a run is complete, the N-PBS Scheduler moves it from the Scheduler tab to the Completed Runs tab.

Depending on your polling time setting, it may take several minutes for a run to appear on the completed runs tab after it finishes. If you don't want to wait for the next automatic poll, you can update the list of runs on the completed runs page by clicking the Refresh button.

A	Completed Runs pane	C	Run Details pane

| B | Completed runs details |

Buttons

Reports: opens the Reports tab

Stats: generates the Run Statistics for the selected run

Set State: lets you lock, unlock, publish and unpublish the selected run. See Lock Runs, Lock Runs, Publish Runs and Unpublish Runs.

Launch Child: opens the Add Run to Queue, automatically using the selected completed run as a parent. See Launch Child.

Relaunch: opens the Add Run to Queue, automatically using the using the run parameters of the selected completed run. See Relaunch a Run.

Convert: allows you to convert a valid completed Training run to absences - only Training runs can be converted. See Convert Training Runs.

Delete: deletes the selected run - locked and published runs cannot be deleted. See Delete Runs.

Refresh: refreshes the status of runs in the queue

Completed Runs Pane

Signature: The Completed Runs pane sorts runs by signature. There are three types of signatures-depending on the type of reserve and training module : Pairing, Reserve and Training.

#Runs: shows the number of runs that have been completed for the signature and category

State: shows the state of run, Locked or Published indicate that one of the runs is in either of these states and blank indicates that the run has no state

Run Statuses

Runs have one of four statuses: valid, stopped, invalid, invalid stopped. These statuses are described below.

![N icon] Only valid runs can be published.

Valid a run that was completed, and used the current set of data; valid runs display a check mark in the Valid column

Stopped a run that was halted by the user before it was complete, but used the current set of data; stopped runs display (Stopped) in the Elapsed Time column and a check mark in the Valid column

Invalid a run that was completed but used a previous set of data; the run no longer reflects the current data set but all reports associated with the run can be viewed; invalid runs do not display a check mark in the Valid column

Invalid Stopped a run that was halted by the user before it was complete and used a previous set of data; invalid stopped runs display (Stopped) in the Elapsed Time column and do not display a check mark in the Valid column

Convert Training Runs

The Convert button allows you convert a valid training run into absences.

To convert a run:

1. Switch to the **Run Manager** tab.

2. Switch to the **Completed** tab, if it isn't currently displayed.

3. Select the completed training run that you want to convert.

4. Click the **Convert** button.

   A dialog prompt opens asking to confirm the conversion

5. Click **OK**.

    A dialog prompt opens asking if you want to publish the results.

6. Click **OK**.

    The results are published to crewmembers and the run state turns to Published.

View Completed Runs

Completed Runs Pane

Signature: The Completed Runs pane sorts runs by signature. There are three types of signatures-depending on the type of reserve and training module : Pairing, Reserve and Training.

#Runs: shows the number of runs that have been completed for the signature and category

State: shows the state of run, Locked or Published indicate that one of the runs is in either of these states and blank indicates that the run has no state

Run Statuses

Runs have one of four statuses: valid, stopped, invalid, invalid stopped. These statuses are described below.

Only valid runs can be published.

Valid a run that was completed, and used the current set of data; valid runs display a check mark in the Valid column

Stopped a run that was halted by the user before it was complete, but used the current set of data; stopped runs display (Stopped) in the Elapsed Time column and a check mark in the Valid column

Invalid a run that was completed but used a previous set of data; the run no longer reflects the current data set but all reports associated with the run can be viewed; invalid runs do not display a check mark in the Valid column

Invalid Stopped a run that was halted by the user before it was complete and used a previous set of data; invalid stopped runs display (Stopped) in the Elapsed Time column and do not display a check mark in the Valid column

IOE Identification - Pairings

> ✱ IOE Pairings are only available to ASH and JBU customers.

IOE functionality flags potential Line Check Airman awards and withholds the equivalent FO pairing from being awarded during the FO award runs.

The system identifies a potential LCA category as any Pilot category which does not have a parent category. This ensures that Captain categories are included regardless of the identification, either CA, A, or anything else.

Flag or Unflag Pairings

From the IOE Pairings tab, administrators can flag awards made to Line Check Airmen in the parent CA (captain) run. You can unflag or flag pairings using the arrows (A) to move a pairing between the columns.

Reports

You can create reports for all of the pairings flagged or you can create reports for a specific category using the drop-down menus and the Generate (B) button.

Reasons Report

A new reason, called Withheld for IOE, has also been added to the Reasons Report. This reason will be given if a crewmember bids for a pairing that has been flagged as IOE.

Schedule and Roster Reports

The pairings withheld are displayed at the end of the Roster and Stats Report after the Open Time pairings.

Stats Report

The Total Number of Blocked IOE Trips and Total Credit of Blocked IOE Trips are displayed on the Stats Report.

View the Pairings Report

The Pairings report displays a list of all the pairings for a selected bid period, for all categories or for a specific category. This report lets you find the pairing numbers for pairings you want to view or manage.

To view the pairings report:

This report is also available under the Reports tab.

1. Switch to the Pairings tab.

2. Switch to the Pairings Report tab, if it isn't currently displayed.

3. Select the category you want to view pairings for. If you want to view pairings for all categories, select ALL from the drop-down list.

4. Click the Generate Report button. *The N-PBS Scheduler generates the report and displays the list of pairings in a separate window.*

5. After you close the window, click Done to return to the Pairings Report tab.

View Reports for Completed Runs

You can view several types of reports for completed runs. These reports let you analyze the results of the run, and help you determine if parameters should be adjusted in future runs.

You can print any report that appears in a separate window by clicking the Print button in the Report window.

You can log out of the N-PBS Scheduler even if you have runs queued or running. The N-PBS Scheduler continues to process these runs whether or not you are logged in.

These reports can be viewed with a pdf reader.

View the Training Patterns Details Report

The Training Patterns Details report displays a summary of each Training Group by Training Type. The report shows the details of the training patterns.

To view the Training Patterns Details report:

1. Switch to the Reports tab.

2. Switch to the Trainings Report tab, if it isn't currently displayed.

3. Select the category you want to view details for. If you want to view details for all categories, select ALL from the drop-down list.

4. Click the Generate Report button. *The N-PBS Scheduler generates the report and displays the list of requirements in a separate window.*

5. After you close the window, click Done to return to the Reports tab.

View the Training Requirements Report

The Training Requirements report displays a summary of each Training Group by Training Type. The report shows the number of crewmembers that require training and the state of the requirement for Training Type. The report also shows the crewmembers that require training.

To view the Training Requirements report:

1. Switch to the **Reports** tab.

2. Switch to the **Trainings Report** tab, if it isn't currently displayed.

3. Select the category you want to view requirements for. If you want to view requirements for all categories, select ALL from the drop-down list.

4. Click the **Generate** Report button. *The N-PBS Scheduler generates the report and displays the list of requirements in a separate window.*

5. After you close the window, click **Done** to return to the Reports tab.

View the Event Requirements Report

The Event Requirements report displays a summary of each Event Group by Event Type. The report shows the number of crewmembers that require event and the state

of the requirement for Event Type. The report also shows the crewmembers that require event.

To view the Event Requirements report:

1. Switch to the Reports tab.

2. Switch to the Events Report tab, if it isn't currently displayed.

3. Select the category you want to view requirements for. If you want to view requirements for all categories, select ALL from the drop-down list.

4. Click the Generate Report button. *The N-PBS Scheduler generates the report and displays the list of requirements in a separate window.*

5. After you close the window, click Done to return to the Reports tab.

View the Event Patterns Details Report

The Event Patterns Details report displays a summary of each Event Group by Event Type. The report shows the details of the event patterns.

To view the Event Patterns Details report:

1. Switch to the **Reports** tab.

2. Switch to the **Events Report** tab, if it isn't currently displayed.

3. Select the category you want to view details for. If you want to view details for all categories, select ALL from the drop-down list.

4. Click the **Generate Report** button. *The N-PBS Scheduler generates the report and displays the list of requirements in a separate window.*

5. After you close the window, click **Done** to return to the Reports tab.

View Reports for Completed Runs

Create Combined Reports

The Reports screen allows you to create a single report or a combined report. The screen is in two sections, Non-Combined Reports and Combined Reports. The Non-Combined Reports section contains the Schedule Report. You cannot combine the Schedule Report with any other report. The Combined Reports section gives you the ability to combine, the [Reasons](#), [Roster](#), [Statistics](#) and [Unstacking](#) Report. You can create a combined report with all of the reports or just ones that you select.

To create a combined report:

1. Switch to the **Run Manager** tab.

2. Switch to the **Completed** tab, if it isn't currently displayed.

3. Select the completed run that you want to view reports for.

4. Click the **Reports** button. The N-PBS Scheduler displays the Reports screen.

5. Select the reports to want to combine by selecting the checkbox beside each report. A checkmark indicates that you want to add.

6. Select the options for each report that you want to combine. See Reasons, Roster, Statistics and Unstacking for more information on the options.

7. Click the **Generate Combined Report** button to generate the combined report.

    After you close the window, click Done to return to the list of completed runs.

To create a single report:

1. Switch to the Run Manager tab.

2. Switch to the **Completed** tab, if it isn't currently displayed.

3. Select the completed run that you want to view reports for.

4. Click the **Reports** button. The N-PBS Scheduler displays the Reports screen.

5. Select the options for the report that you want to create. See Reasons, Roster, Statistics and Unstacking for more information on the options.

6. Click the **Generate Report** button to underneath the options for the report you want to create.

    After you close the window, click Done to return to the list of completed runs.

Consecutive Reserve

You cannot output runs for Pairing Runs

Completed Run Statistics

You can view the statistics for a completed or published run. The statistics provide information on the time it took to complete the run, the number and types of bidders, the number and types of blocks generated, the parameters used for the run, and why passes were considered unacceptable.

The Stats report also shows the rules that you have configured and the values for these rules(if necessary). The rules are prefaced with either Pairing or Reserve to let you know where they are applied.

To view the statistics for a run:

1. Switch to the **Run Manager** tab.

2. Switch to the **Completed** tab, if it isn't currently displayed.

3. Select the completed run that you want to view statistics for. You can view statistics for completed runs or published runs.

4. Click the **Stats** button beside the appropriate pane.

   The N-PBS Scheduler displays the statistics for the run in a separate window.

Run Statistics

The following table provides a more detailed explanation of each of the run statistics.

Run Statistic	Includes IC in Merged Run	Includes Shadow Bidders	Explanation
Total Crew Members	x		● the number of crewmembers who are bidders or no-bidders, excluding shadow bidders ● in an IC/FA merged run, all ICs who receive lines in the IC run count as no-bidders in the FA run
Ineligible Bidders	x		● the number of crewmembers who are no-bidders ● in an IC/FA merged run, all ICs who receive lines in the IC run count as no-bidders in the FA run ● in a CA/FO merged run, all CAs who receive lines in the CA run count as no-bidders in the FO run

Run Statistic	Includes IC in Merged Run	Includes Shadow Bidders	Explanation
Total Shadow Bidders			● the number of crewmembers who are shadow bidders ● in a CA/FO merged run, all CAs (bidders and shadow bidders) who receive lines in the CA count as no-bidders in the FO run, and aren't included
Total Reserves			● the number of bidders who were awarded a reserve line, excluding shadow bidders ● in an IC/FA merged run, only the FA reserves are included
Reserve Percentage			● the percentage of bidders, excluding shadow bidders, who were awarded a reserve line

Run Statistic	Includes IC in Merged Run	Includes Shadow Bidders	Explanation
Total Lines Sequences			● the number of bidders who were awarded a block, excluding shadow bidders ● in an IC/FA merged run, only the FA block-holders are included
Average Line Value (ALV)			● the average in-period credit of the blocks awarded to regular and reduced block holders, excluding shadow bidders ● in an IC/FA merged run, only the FA block-holders are included
ALV Reduced Block			● the average in-period credit of the reduced blocks awarded to reduced block holders, excluding reduced-block shadow bidders

Run Statistic	Includes IC in Merged Run	Includes Shadow Bidders	Explanation
			• in an IC/FA merged run, only the FA reduced block-holders are included
ALV Regular Block	x		• the average in-period credit of the regular blocks awarded to regular block holders, excluding regular-block shadow bidders • in an IC/FA merged run, only the FA regular block-holders are included
Highest Credit Person			• the employee ID and in-period credit value of the bidder with the highest in-period credit, excluding shadow bidders • in an IC/FA merged run, only FA block-holders are included

Run Statistic	Includes IC in Merged Run	Includes Shadow Bidders	Explanation
Lowest Credit Person			● the employee ID and in-period credit value of the bidder with the lowest in-period credit, excluding shadow bidders ● in an IC/FA merged run, only FA block-holders are included
Flights Credit	x		● the total in-period credit of all pairings on the blocks of bidders and no-bidders, excluding shadow bidders ● open time is included ● the carry-out portion of pairings is not included ● in an IC/FA merged run, IC crewmembers are not included

Run Statistic	Includes IC in Merged Run	Includes Shadow Bidders	Explanation
Absences Credit			● the total in-period credit of all absences on the lines of bidders and no-bidders, excluding shadow bidders ● in an IC/FA merged run, IC absences are included
Total Credit on Pairings Lines			● the total in-period credit on the blocks of bidders who were awarded a block, excluding shadow bidders ● in a CA/FO merged run, only FO block-holders are included
Total Credit on Reserve Lines			● the total in-period credit on the blocks of bidders who were awarded a reserve block, excluding shadow bidders ● in a CA/FO merged run, only FO block-holders are included

Run Statistic	Includes IC in Merged Run	Includes Shadow Bidders	Explanation
Open Time Credit			● the total in-period credit of all pairings in open time ● in an IC/FA merged run, IC open time is not included
Total Credit	x		● the sum of the Flights Credit value and the Absences Credit value ● the total in-period credit of all pairings and all absences with credit on the schedules of bidders and no-bidders, excluding shadow bidders ● open time is included ● the carry-out portion of pairings is not included

Dynamic Stats Report

Dynamic Stats was formally known as New Stats report.

You can only generate a New Stats report for runs completed with Navtech N-PBS version 15-3 and newer.

You will get an error message if you attempt to generate a report for a run completed with previous versions of Navtech N-PBS.

You can view the New Stats report for a completed or published run.

To view the statistics for a run:

1. Switch to the **Run Manager** tab.

2. Switch to the **Completed** tab, if it isn't currently displayed.

3. Select the completed run that you want to view statistics for. You can view statistics for completed runs or published runs.

4. Click the **Dynamic** button beside the appropriate pane.

   The N-PBS Scheduler displays the statistics for the run in a separate window.

Dynamic Stats Report Definitions

The following provides a more detailed explanation of each statistic. The stats are reported based on these definitions, therefore some statistics may be different than in the Stats Report.

Name:

Run name

Start:

Start date and time of the run in UTC

End:

End date and time of the run in UTC

Valid:

Shows the validity of the run, yes or no.

Total Crew Members:

Included in Concurrent/Pairing/Reserve runs

Total Number of People in the run (including ineligible bidders)

Note: For Consecutive Reserve runs, this is the number of people that received simple reserve lines in the parent pairing run.

Eligible Bidders:

Included in Concurrent/Pairing runs

Total Number of Eligible Bidders in the run

Ineligible Bidders:

Included in Concurrent/Pairing runs

Total Number of Ineligible Bidders in the run

Bidders with No Line:

Included in Concurrent/Pairing/Reserve runs

The number of eligible bidders who do not end the run with either a pairing line or a reserve line (i.e. they are not included in the Pairing Lines and Reserve Lines statistics).

This also displays the employee numbers, similar to the existing stats report.

Pairing Lines:

Included in Concurrent/Pairing runs

The number of pairing lines awarded

Reserve Lines:

Included in Concurrent/Pairing/Reserve runs

In Concurrent and Reserve runs, this is the number of detailed reserve lines awarded. In Pairing runs, this is the number of simple reserve lines awarded.

Reserve % (Eligible Bidders):

Included in Concurrent/Pairing runs

Number of Reserve Lines / Number of Eligible Bidders

Note: The Eligible Bidders includes Bidders with No Line, which makes this statistic different from the statistic shown on the existing stats report.

Reserve % (Trip Lines):

Included in Concurrent/Pairing runs

Number of Reserve Lines / Number of Pairing Lines

Pairing Credit:

Included in Concurrent/Pairing runs

Total In-Period Credit of all real (non-shadow) awards of pairings to all eligible bidders and open lines.

Shadow Pairing Credit:

Included in Concurrent/Pairing runs

Total In-Period Credit of all shadow awards of pairings to all eligible bidders.

Absences Credit:

Included in Concurrent/Pairing runs

Total In-Period Credit of all Absences awarded to eligible bidders.

Total Credit On Pairing Lines (Used In ALV):

Included in Concurrent/Pairing runs

Total In-Period Credit on all pairing lines

Note: The text (Used In ALV) is part of the label whereas in the existing stats report it is printed after the number. This label is wrapped onto 2 lines in the New Stats report in order to avoid having to too much white space before all of the vertically-aligned values.

Total Credit On Reserve Lines:

Included in Concurrent/Pairing runs

Total In-Period Credit on all reserve lines

In Consecutive Pairing runs, this includes credit associated with simple reserve lines.

Total Credit On Bidders with No Line:

Included in Concurrent/Pairing runs

Total In-Period Credit on all Bidders with No Line

Open Time Credit

Included in Concurrent/Pairing runs

Total In-Period Credit on all open lines

Open Time Percentage

Open time percentage is Open Time Credit / Pairing Credit

ALV Pairing Credit:

Included in Concurrent/Pairing runs

Average In-Period Pairing Credit, including all Pairing Lines

Average Line Value (ALV):

Included in Concurrent/Pairing

Average In-Period Credit (Pairings + Absences), including all Pairing Lines

ALV Reduced Block:

Included in Concurrent/Pairing

Average In-Period Credit for all pairing lines of the relevant type

ALV Not Reduced Block:

Included in Concurrent/Pairing

Average In-Period Credit for all pairing lines of the relevant type

ALV Reduced Lower Limit:

Included in Concurrent/Pairing

Average In-Period Credit for all pairing lines of the relevant type

ALV Not Reduced Lower Limit:

Included in Concurrent/Pairing

Average In-Period Credit for all pairing lines of the relevant type

ALV Pure Split Duty:

Included in Concurrent/Pairing

Average In-Period Credit for all pairing lines of the relevant type

ALV Not Pure Split Duty:

Included in Concurrent/Pairing

Average In-Period Credit for all pairing lines of the relevant type

Highest Credit Person:

Included in Concurrent/Pairing runs

In-Period Credit on highest credit pairing line

This also shows the employee number, similar to the existing stats report.

Lowest Credit Person:

Included in Concurrent/Pairing runs

In-Period Credit on lowest credit pairing line

This also shows the employee number, similar to the stats report.

Average Block on Pairing Lines:

Included in Concurrent/Pairing runs

Average block time over all Pairing Lines - Total Block on Pairing Lines / Pairing Lines

Highest Block Person:

Included in Concurrent/Pairing runs

Crew member with a Pairing Line that has the highest block time - displays employee number and block time

Lowest Block Person:

Included in Concurrent/Pairing runs

Crew member with the Pairing Line that has the lowest block time - displays employee number and block time

Total Block on Pairing Lines:

Included in Concurrent/Pairing runs

Total amount of block time on all Pairing Lines

Total Block on Reserve Lines:

Included in Concurrent/Pairing runs

Total amount of block time on all Reserve Lines

Total Block On Bidders With No Lines:

Included in Concurrent/Pairing runs

total amount of block time on all bidders with no lines

Open Time Block:

Included in Concurrent/Pairing runs

Total amount of block time in open time

Total Block:

Included in Concurrent/Pairing runs

Total amount of block time

Average Days Off (Non-Working):

Included in Concurrent/Pairing runs

Average Days Off (blank or containing only Non-Work-For-Days-On-Off absences) among pairing line holders.

Note: this is for all reserve types (unlike the Stats report).

Total Days Off (Non-Working):

Included in Concurrent/Pairing runs

Total Days Off (blank or containing only Non-Work-For-Days-On-Off absences) among pairing line holders.

Average Days Off (Free):

Included in Concurrent/Pairing runs

Average Days Off (blank or containing only "Is Day Off" absences) among pairing line holders.

Total Days Off (Free):

Included in Concurrent/Pairing runs

Total Days Off (blank or containing only "Is Day Off" absences) among pairing line holders.

Reserve Days On Awarded:

Included in Concurrent/Reserve runs

The number of real (non-shadow) reserve days on awarded

Shadow Reserve Days On Awarded:

Included in Concurrent/Reserve runs

The number of shadow reserve days on awarded

Total Min Coverage Requested:

Included in Concurrent/Reserve runs

The total of reserve min coverage (over all days)

Total Min Coverage % of Days On:

Included in Concurrent/Reserve runs

Total Min Coverage Requested / Reserve Days On Awarded

Max Net Reserve:

Included in Concurrent/Reserve runs

Real (non-shadow) Reserve Days On - Open Time Pairings, on a per day basis (already shown as Net Coverage within the existing stats report within a table that appears

within the Scheduler-ReserveStackHeight parameter section), this is the maximum of those numbers (i.e. highest day).

Min Net Reserve:

Included in Concurrent/Reserve runs

Similar to above, this is the minimum of those numbers (i.e. lowest day).

Average Net Reserve Per Day:

Included in Concurrent/Reserve runs

Similar to above, this is the average of those per-day numbers

Pairing Lines Unstacked:

Included in Concurrent/Pairing runs

The number of pairing lines which include at least 1 pairing coverage award

% Pairing Lines Unstacked:

Included in Concurrent/Pairing runs

Pairing Lines Unstacked/Pairing Lines

Pairing Line Highest Seniority Unstacked:

Included in Concurrent/Pairing runs

The seniority of the most senior person counted towards "Pairing Lines Unstacked"

Reserve Lines Unstacked:

Included in Concurrent/Reserve runs

The number of reserve lines which include at least 1 reserve coverage award

% Reserve Lines Unstacked:

Included in Concurrent/Reserve runs

Reserve Lines Unstacked / Reserve Lines

Reserve Line Highest Seniority Unstacked:

Included in Concurrent/Reserve runs

The seniority of the most senior person counted towards "Reserve Lines Unstacked"

Pairing Lines with SLG:

Included in Concurrent/Pairing runs

The number of pairing lines completed using SLG

% Pairing Lines with SLG:

Included in Concurrent/Pairing runs

Pairing Lines with SLG / Pairing Lines

Bidders Processed Using Default Bid:

Included in Concurrent/Pairing/Reserve runs

Only bidders using default bids

Bidders Processed Using Current Bid:

Included in Concurrent/Pairing/Reserve runs

Only bidders using current bids

Min-Credits Honored/Allowed:

Included in Concurrent/Pairing runs

Allowed numbers are from the run parameters MinCreditsHonoured, and Honored numbers are the number of people who bid for Credit

Max-Credits Honored/Allowed:

Included in Concurrent/Pairing runs

Allowed numbers are from the run parameters MaxCreditsHonoured, and Honored numbers are the number of people who bid for Credit

Reserve Coverage:

Included in Concurrent and Consecutive Reserve runs

Reserve coverage stats in a table

Excel Export

You can only generate an Excel Export for runs completed with Navtech N-PBS version 15-3 and newer.

You will get an error message if you attempt to generate an excel export for a run completed with previous versions of Navtech N-PBS.

The Excel Export creates an excel spreadsheet with a column for each stat that is in the New Stats report.

You can create one spreadsheet for multiple runs in the same category by holding down the Shift key and select multiple runs.

To create a spreadsheet:

1. Switch to the **Run Manager** tab.

2. Switch to the **Completed** tab, if it isn't currently displayed.

3. Select the completed run or runs that you want to create an excel export for. You can create an export for completed runs or published runs.

4. Click the **Excel Export** button.

   The N-PBS Scheduler opens the export file.

   See New Stats Report for definitions of stats provided.

Completed Training Run Statistics

You can view the statistics for a completed or published run. The statistics provide information on the time it took to complete the run, the number and types of bidders,

the number and types of blocks generated, the parameters used for the run, and why passes were considered unacceptable.

To view the statistics for a run:

1. Switch to the **Run Manager** tab.

2. Switch to the **Completed** tab, if it isn't currently displayed.

3. Select the completed run that you want to view statistics for. You can view statistics for completed runs or published runs.

4. Click the **Stats** button beside the appropriate pane.

    The N-PBS Scheduler displays the statistics for the run in a separate window.

Run Statistics

The following table provides a more detailed explanation of each of the run statistics.

Run Statistic	Explanation
Junior Assigning was ENABLED	● status of junior assigning - ENABLED or DISABLED
Total Crew Members in Group	● the number of crewmembers who are bidders

Run Statistic	Explanation
Crew Members with Training Requirements	● the number of crewmembers that have training requirements
Ineligible Bidders with Training Requirements	● the number of ineligible bidders
Total In-period Credit Awarded	● the total in-period credit on the blocks of bidders who were awarded a training event
Junior-Assign Seats Unassigned	● the number of bidders who were awarded training through junior assigning
Must Go Requirements not Satisfied	● the number of Must Go Requirements that could not be awarded

Unassigned Seats: List of unassigned Training Events, this includes: Pattern Name, Date, Total Seats, Unassigned Seats and Junior Assign.

Training Requirements Summary: List of Training Type, State, Overall Requirements and Satisfied Requirements.

Pattern Awards Summary: Summary of the awarded Training.

Scheduler Details: Overview of the techniques used to honor bids and a summary of the results of these techniques.

Options: List of scheduler options and rules used

Completed Event Run Statistics

You can view the statistics for a completed or published run. The statistics provide information on the time it took to complete the run, the number and types of bidders, the number and types of blocks generated, the parameters used for the run, and why passes were considered unacceptable.

To view the statistics for a run:

1. Switch to the **Run Manager** tab.

2. Switch to the **Completed** tab, if it isn't currently displayed.

3. Select the completed run that you want to view statistics for. You can view statistics for completed runs or published runs.

4. Click the **Stats** button beside the appropriate pane.

    The N-PBS Scheduler displays the statistics for the run in a separate window.

Run Statistics

The following table provides a more detailed explanation of each of the run statistics.

Run Statistic	Explanation
Junior Assigning was ENABLED	● status of junior assigning - ENABLED or DISABLED
Total Crew Members in Group	● the number of crewmembers who are bidders
Crew Members with Event Requirements	● the number of crewmembers that have event requirements
Ineligible Bidders with Event Requirements	● the number of ineligible bidders
Total In-period Credit Awarded	● the total in-period credit on the blocks of bidders who were awarded a event event

Run Statistic	Explanation
Junior-Assign Seats Unassigned	• the number of bidders who were awarded event through junior assigning
Must Go Requirements not Satisfied	• the number of Must Go Requirements that could not be awarded

Unassigned Seats: List of unassigned Event Events, this includes: Pattern Name, Date, Total Seats, Unassigned Seats and Junior Assign.

Event Requirements Summary: List of Event Type, State, Overall Requirements and Satisfied Requirements.

Pattern Awards Summary: Summary of the awarded Event.

Scheduler Details: Overview of the techniques used to honor bids and a summary of the results of these techniques.

Options: List of scheduler options and rules used

Schedule Report

The schedule report displays the awards for all employees in a graphical format, and can also display the open time blocks and shadow bidder blocks.

To view the schedule report:

1. Switch to the **Run Manager** tab.
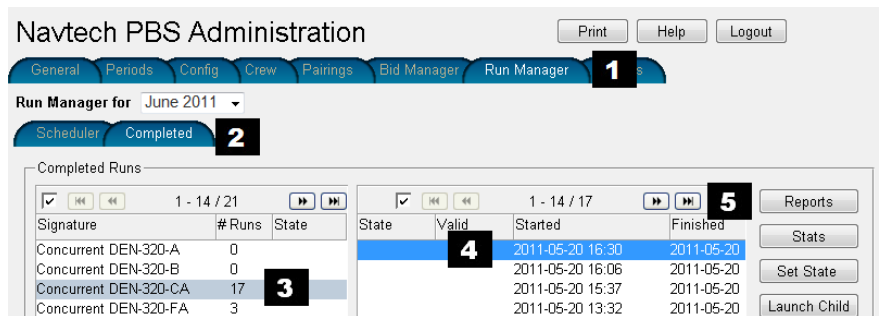
2. Switch to the **Completed** tab, if it isn't currently displayed.

3. Select the category from the column on the right. The completed runs for that category are shown on the left.

4. Select the completed run that you want to generate a schedule report for. You can generate a schedule report for completed runs or published runs.

    NOTE: If you want to generate a Schedule Roster Report using default values, you can opt to select the Scheduler button from the right side menu. Doing this bypasses the next steps, and can save time in those instances where a simple Schedule Roster is needed.
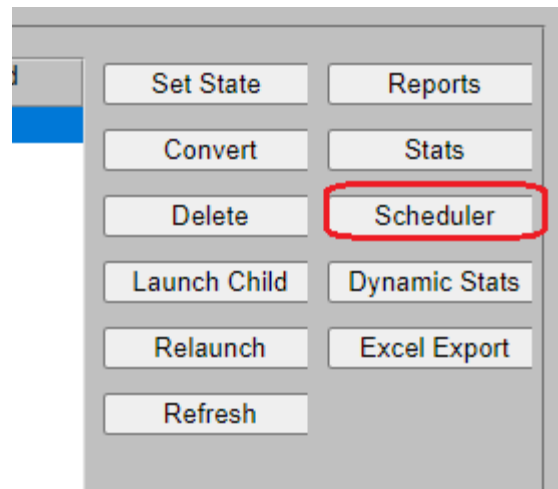
5. Click the **Reports** button beside the appropriate pane. The N-PBS Scheduler displays the Run Reports screen.
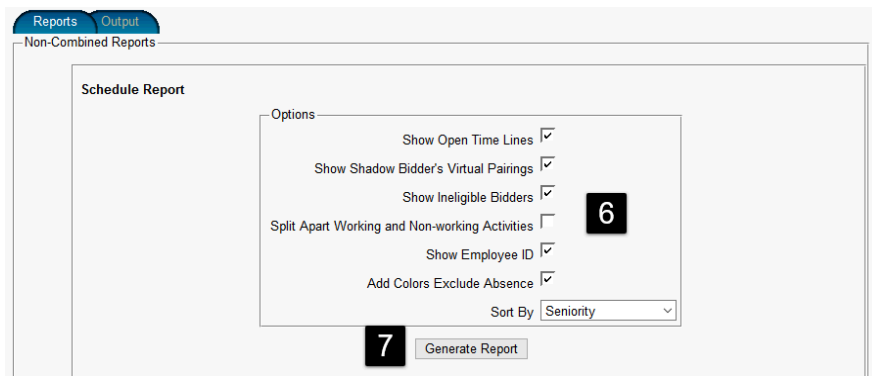
6. Set the options for the schedule report.

- show open time lines displays the blocks of open pairings at the end of the schedule report

- show shadow bidder's virtual pairings displays the blocks awarded to shadow bidders

- show bidders flagged as ineligible

- split apart working and non-working activities displays working and non-working activities on completely separate lines

- show employee ID

- add colors exclude absence - choose whether to highlight pairing and reserve lines in color

- sort by seniority or employee number determines how the schedule report is organized

7. Click the **Generate Reports** button. The N-PBS Scheduler generates the report from the selected run results and displays the schedule report in a separate window.

8. After you close the window, click Done to return to the list of completed runs.

On the schedule, carry-incarry-out pairings are indicated by an asterisk (*), International pairings by a plus (+), and SpecialOverseasTransoceanic International pairings by a hatch (#).

Roster Report

The roster report displays the awards for all employees in a text-based format, and can also display the open time schedules and shadow bidder schedules.

To view the roster report:

1. Switch to the **Run Manager** tab.

2. Switch to the **Completed** tab, if it isn't currently displayed.

3. Select the completed run that you want to generate a roster report for. You can generate a roster report for completed runs or published runs.

4. Click the **Reports** button beside the appropriate pane. *The N-PBS Scheduler displays the Run Reports screen.*

5. Switch to the **Roster Report** tab.

6. Set the options for the roster report.

   - show open time lines displays the schedules of open trips at the end of the schedule report

   - show shadow bidder's virtual trips displays the schedules awarded to shadow bidders

   - show language requirements satisfied displays the language awards for each crewmember

   - sort by seniority or employee number determines how the schedule report is organized

7. Click the **Generate Reports** button. The N-PBS Scheduler generates the report from the selected run results and displays the roster report in a separate window.

8. After you close the window, click **Done** to return to the list of completed runs.

Reasons Report

Concurrent Reserve Only - Combined Reasons Report

Combined Reasons Report allows you to combine the Reasons Report for pairing and reserve runs. See [Combined Reasons Report](#) for more information.

The reasons report explains the results of each bid preference in a bid, and also provides a reason explaining why each bid preference was or was not honored or used.

You can generate a reasons report for a single crewmember, or for all crewmembers.

To view the reasons report:

1. Switch to the **Run Manager** tab.

2. Switch to the **Completed** tab, if it isn't currently displayed.

3. Select the completed run that you want to generate a reasons report for. You can generate a reasons report for completed runs or published runs.

4. Click the **Reports** button beside the appropriate pane. The N-PBS Scheduler displays the Run Reports screen.

5. Switch to the Reasons Report tab.

6. Set the options for the reasons report.

   - select all employees or a specific crewmember to generate a reasons report for

   - show ineligible bidders displays crewmembers that are in the system but are currently flagged as ineligible bidders

- sort by seniority or employee number determines how the reasons report is organized, if you are generating a reasons report for all employees

- the language (English or French) determines the language used to display the report

7. Click the **Generate Reports** button. The N-PBS Scheduler generates the report from the selected run results and displays the reasons report in a separate window.

8. After you close the window, click **Done** to return to the list of completed runs.

Combined Reasons Report

Concurrent Reserve Only - Combined Reasons Report

The Combine Parent Run Reasons Report checkbox allows you to combine the Reasons Report for the Reserve Run and the Reasons Report for its parent Pairing run.

- the checkbox is only available when viewing the Reasons Report for the Reserve run

- all other functionality remains the same, see [Reasons Report](#) for more information.

Unstacking Report

The unstacking report provides statistics and other information about the run, including how many passes were made and how large the stacks were.

To view the unstacking report:

1. Switch to the **Run Manager** tab.

2. Switch to the **Completed** tab, if it isn't currently displayed.

3. Select the completed run that you want to generate an unstacking report for. You can generate an unstacking report for completed runs or published runs.

4. Click the **Reports** button beside the appropriate pane. *The N-PBS Scheduler displays the Run Reports screen.*

5. Switch to the **Unstacking Report** tab.

6. Set the options for the unstacking report.

    - show unstacking statistics provides information on the types and amount of unstacking done in this run

    - show forced pairings identifies pairings forced onto specific employees' blocks

    - show triggered stacks identifies the stacks (critical period or language) that were triggered during this run

    - sort by seniority or reason determines how the unstacking report is organized

7. Click the **Generate Reports** button. The N-PBS Scheduler generates the report from the selected run results and displays the unstacking report in a separate window.

8. After you close the window, click **Done** to return to the list of completed runs.

Output Runs

The Output tab outputs pairings and awards information for day-of tracking in your crew tracking system. Usually, only published results are output to your crew tracking system.

To output pairings and awards information:

1. Switch to the **Run Manager** tab.

2. Switch to the **Completed** tab, if it isn't currently displayed.

3. Select the published run that you want to output data for.

4. Click the **Reports** button beside the Published Runs pane. The N-PBS Scheduler displays the Run Reports screen.

5. Switch to the **Output** tab.

6. Click the button corresponding to the type of data you want to output. The N-PBS Scheduler displays a dialog that lets you save the data or open it in another application.

7. Navigate to the appropriate location and save the file.

   After you close the window, click Done to return to the list of completed runs.

Consecutive Reserve

You cannot output runs for Pairing Runs

Safte-Fast(FRMS) Crew Roster Export Report

The Output tab outputs pairings and awards information for the FRMS system in an XML format. Usually, only published results are output to your crew tracking system. You can only create outputs for valid runs.

To output FRMS information:

1. Switch to the **Run Manager** tab.

2. Switch to the **Completed** tab, if it isn't currently displayed.

3. Select the valid run that you want to output data for.

4. Click the **Reports** button beside the Published Runs pane. The N-PBS Scheduler displays the Run Reports screen.

5. Switch to the **Output** tab.

6. Select **All Employees** or **Employee Number** (also enter employee number)

7. Click the **Generate Report** button to create the report. The N-PBS Scheduler begins creating the file, options vary by browser type.

   After you close the window, click Done to return to the list of completed runs.

Publish and Unpublish Runs

Publish Runs

Publishing a run makes the awards, pre-awarded absences, and reasons reports available for crewmembers to view when they log in to the N-PBS Scheduler.

If you checked the Merge with Run Data check box when you set up the parents for your categories, you only need to publish FA runs for each base, because the FA runs include the IC run information

You can unpublish after it has been published. See Unpublish Runs for details.

To publish a run:

1. Switch to the Run Manager tab.

2. Switch to the Completed tab, if it isn't currently displayed.

3. Select the completed run that you want to publish. Only valid runs can be published.

4. Click the **Set State** button. A menu opens with three options: <Clear>, Locked and Published.

5. Select Published. The N-PBS Scheduler asks you to confirm that you want to publish the selected run.

6. Click **OK**. The N-PBS Scheduler publishes the run and **Published** is displayed in the State column.
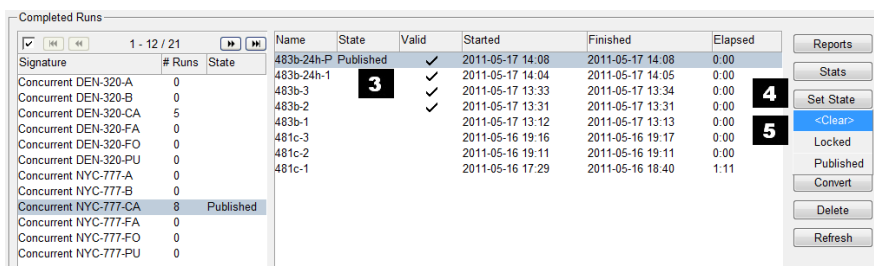
    You may also need to output a published run to your crew tracking system.

Unpublish Runs

Unpublishing a run removes the awards, pre-awarded absences, and reasons reports available for crewmembers to view when they log in to the N-PBS Scheduler. See Publish Runs for details on publishing runs.

To publish a run:

1. Switch to the **Run Manager** tab.

2. Switch to the **Completed** tab, if it isn't currently displayed.

3. Select the run that you published.

4. Click the **Set State** button. A menu opens with three options: **<Clear>**, **Locked** and **Published**.

5. Select **<Clear>**. The N-PBS Scheduler asks you to confirm that you want to unpublish the selected run.

6. Click **OK**. The N-PBS Scheduler unpublishes the run and **Published** is removed from the State column.

Lock and Unlock Runs

Lock Runs

Locking a run protects a run in the same manner as published runs except run results are not published to crewmembers. A locked run cannot be deleted or invalidated.

To Lock a run:

1. Switch to the **Run Manager** tab.

2. Switch to the **Completed** tab, if it isn't currently displayed.

3. Select the completed run that you want to lock. Only valid runs can be locked.

4. Click the **Set State** button. A menu opens with three options: **<Clear>**, **Locked** and **Published**.

5. Select **Locked**. The N-PBS Scheduler asks you to confirm that you want to lock the selected run.

6. Click **OK**. The N-PBS Scheduler locks the run and **Locked** is displayed in the State column.

Unlock Runs

Unlocking a run restores the run to its previous unlocked state. See Lock Runs for details on locking runs.

To unlock a run:

1. Switch to the **Run Manager** tab.

2. Switch to the **Completed** tab, if it isn't currently displayed.

3. Select the completed run that you want to unlocked.

4. Click the **Set State** button. A menu opens with three options: **<Clear>**, **Locked** and **Published**.

5. Select <Clear>. The N-PBS Scheduler asks you to confirm that you want to publish the selected run.

6. Click **OK**. The N-PBS Scheduler unlocks the run and Locked is removed from the State column.

Delete Runs

You can delete unpublished runs from the completed runs list.

⚠️ Once you delete a run, you can't undelete it. Be careful when selecting the run to delete.

⚠️ Published runs can't be deleted, but you can unpublish a run. See Unpublish a run for details.

To delete a run:

1. Switch to the **Run Manager** tab.

2. Switch to the **Completed** tab, if it isn't currently displayed.

3. Select the completed run that you want to delete. Remember that you can't undelete a run once you've deleted it, so check your selection carefully.

4. Click the **Delete** button. The N-PBS Scheduler asks you to confirm that you want to delete the selected run.

5. Click **OK**.

   The N-PBS Scheduler deletes the run from the completed runs pane.

Delete Multiple Runs

You can delete multiple completed runs. Only the Delete key will be enabled when multiple runs are selected.

To select multiple runs:

● hold the Ctrl key and click on each run

   or

● click on the first run and hold the shift key and click on the last run

Rule Exceptions

Rule Exception Screen
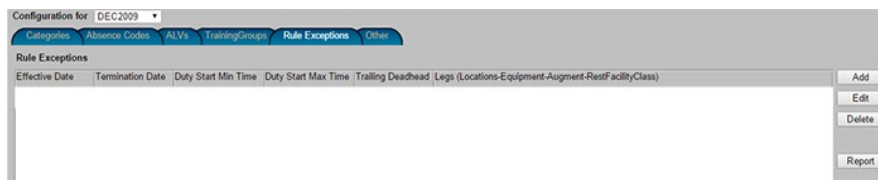
The Rule Exception Screen displays all rule exceptions entered or imported (imported from the data import screen) by Administrators. From this screen you can access the rule exception table to add new rule exceptions or edit existing ones. Also, the Report

button allows you to run a report that displays all exceptions and all pairings that match the criteria of the exception.

When you add a rule exception, it is stored in a table that maps the pairing criteria to the rule values. Special rule values are applied when building schedules if the pairing matches the criteria. Some of the rule values replace the standard values used in existing rules - these values can be more or less-restrictive than standard values. Other rule values are separate from existing rules and activate additional rules. The rule values from the exceptions are applied during runs.

The rule exceptions are period specific and will not be available to be edited for old deactivated periods.

The rule exceptions are also applied in the Line Simulator.

See, Add/Edit Rule Exceptions for more information.

Rule exception criteria can be viewed on the Run Statistic Report under the Rule Exception section on the report.

```
Rule Exceptions

Rule Exception Criteria

      Effective Date: Dec 01, 2009      Termination Date: Dec 31, 2009
  Duty Start Min Time: 00:00           Duty Start Max Time: 23:59
    Trailing Deadhead: No

  Leg Index  Locations  Augment   Rest Facility Class   Equipment
  _____
      1        DXBATL       2            Class1             777
Rule Values
          Max Block:  020:00                   Max FDP:  020:00
        Rest Before:  000:00               Rest  After:  000:00
    Hours Rest After: 000:00   Physiological Nights After:  0
  -------------------------------------------------------------------
```

Add/Edit a Rule Exception

The Rule Exception sub-tab is located in the Config tab.

1. Navigate to the Rule Exception screen.

2. Select Add or Edit. See Edit a Rule Exception for instructions on selecting a rule to edit.

3. Add/Edit the Rule Exception criteria and values (see below for more details).

4. Select Save to keep the changes / Select Cancel to return to the Rule Exception screen.

5. Optional. You can see the pairings that match the criteria you entered. See Show Matching Pairings for more information.

Rule Exception Criteria

Pairing criteria is listed below with details. The fields are related to a specific duty. A pairing matches the criteria if it contains a matching duty.

Effective Date and Termination Date:

The start date of the duty must be between these 2 dates.

Note: this is the duty start, not the pairing start. A pairing does NOT match if the duty starts after the termination date, even if the pairing starts before the termination date.

This includes both end values (i.e. includes duties that start on the effective date and includes duties that start on the termination date). Date is measured using the local time of the duty's start location.

Duty Start Min Time and Duty Start Max Time:

The start time of the duty must be between the Duty Start Min time entered and the Duty Start Max time entered.

This includes both end values (i.e. includes duties that start at exactly the Duty Start Min Time, and includes duties that start at exactly the Duty Start Max Time). Time is measured using local time of the start location of the duty. **(Note: this ensures that the duties that match the criteria are unaffected by crewmember acclimation status).**

Time ranges crossing midnight

If the minimum times that are strictly greater than the maximum times are interpreted as crossing midnight. The start time of the matching duty must either by greater than or equal to the minimum, or less than or equal to the maximum.

For example, given Minimum 18:00 and Maximum 06:00, the duty start time must either be in the range 18:00 to 23:59 (including both end values), or in the range 00:00 to 06:00 (including both end values).

Note that the date range must be matched independently of the time, for example:

- Effective Date 10 Jan 2014

- Termination Date 10 Feb 2014

- Duty Start Minimum Time 18:00

- Duty Start Maximum Time 06:00

- Duties starting in the range 18:00 to 23:59, or in the range 00:00 to 06:00, on every date from 10 Jan 2014 to 10 Feb 2014, do match.

- Duties starting in the range 00:00 to 06:00 on 11 Feb 2014 do not match.

Allow Trailing Deadheads

If the Allow Trailing Deadheads flag is **False (unchecked)** - the duty must not contain any deadheads. It does not match if it contains deadheads.

If the Allow Trailing Deadheads flag is **True (checked)** - the duty may optionally contain trailing deadheads only (deadheads after the last non-deadhead leg in the duty). Deadheads are not allowed elsewhere in the duty. It does not match if it contains deadheads earlier in the duty.

Leg Criteria

The number of non-deadhead legs within the duty must exactly match the number Legs present within the criteria.

Locations

The non-deadhead legs of the duty must exactly match the location pairs in the exception criteria, in the exact same order, with starts before ends (e.g. Leg 1 Start, Leg 1 End, Leg 2 Start, Leg 2 End etc.)

Equipment

The non-deadhead legs of the duty must match one of the equipment specified for the corresponding leg except when specified equipment value is "*" which means any equipment.

Augments and Rest Facility Classes

The Augment is the pilot crew complement subtract 2.

The non-deadhead legs of the duty must exactly match the Augments and Rest Facility Classes for the corresponding legs. There is one exception, pairings with zero augment, for these legs the Rest Facility Class need not match (since it is not relevant).

The augment and rest class facility (when rest class facility is relevant) must match exactly. A higher augment or better rest facility class does not match.

Rule Values

Max Block

An entered value of 0:00 has no effect.

The value entered replaces the maximum flight time value that will be used in FAR 117.11. This new value replaces the normal value, whether it is higher or lower than the normal value.

When an exception value is being used, buffers do not apply; exact values entered are used.

When an exception value is being used, the crewmember's acclimation status does not affect that value. Therefore, if a duty is constructed legally (i.e. not exceeding this max block), it will always be legal in N-PBS (for FAR 117.11). Use the Enforce Max Block From Exceptions Table checkbox run parameter to choose whether to enforce the exception values in N-PBS anyway (e.g. A pairing which is subject to an exception value and has been constructed illegally to exceed that exception value will be illegal to award in N-PBS if this parameter is selected).

Max FDP

An entered value of 0:00 has no effect.

The value entered replaces the maximum FDP value that will be used in FAR 117.13_15_17. This new value replaces the normal value, whether it is higher or lower than the normal value.

When an exception value is being used, buffers do not apply; exact values entered are used.

When an exception value is being used, for Unacclimated crewmembers, the N-PBS Scheduler will not subtract the usual 30 minutes (whereas it does when using the normal limit taken from table B or C).

Split duty rest will continue to be subtracted from the FDP as normal for unaugmented duties that contain qualifying split duty rest.

Rest Before

The value entered is enforced as a rest before the matching duty.   The N-PBS Scheduler will only consider the first duty in the pairing as it is assumed to have been properly enforced by pairing construction.

An entered value of 0:00 has no effect.

The value entered replaces the normal value for rest before the pairing in FAR 117.25e. This new value replaces the normal value, whether it is higher or lower than the normal value.

When an exception value is being used, buffers do not apply; exact values entered are used.

This value only replaces the value used in FAR 117.25e. Other rules that place a rest before the pairing are also applied so that the largest required rest is enforced.

Rest After

The value entered is enforced as a rest after the matching duty. The N-PBS Scheduler will only verify the last duty in the pairing as it is assumed to have been properly enforced by pairing construction.

An entered value of 0:00 has no effect.

The value entered is applied with the Rest After Pairings From Exceptions Table rule.

Hours Rest After Pairing and Phys Nights After Pairing

These values enforce rest after the matching pairing (regardless of where the matching duty occurred within the pairing).

The entered values are applied within the Rest After Pairings From Exceptions Table rule.

Select a Rule Exception to Edit

1. Navigate to the **Rule Exception** screen.

2. Select a rule exception on the **Rule Exception** screen. Once selected the rule exception is highlighted blue, see image below.

3. Click **Edit**, once selected, the Edit Rule Exception screen opens. See Add/Edit Rule Exceptions for information on pairing criteria and rule values.
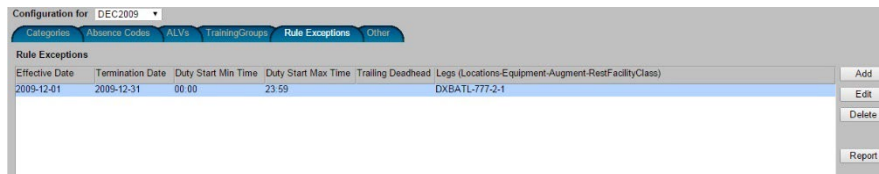
Show Matching Pairings

1. Enter/edit the pairing criteria. See Add/Edit Rule Exceptions

2. Click the **Show Matching Pairings** button at the bottom of the screen. Once selected the report opens in a separate window.

   The report shows you the criteria you have entered and the pairings that matched the criteria.

```
------------------------------------------------------------------------------------------
Rule Exception Criteria

        Effective Date: Dec 01, 2009      Termination Date: Dec 31, 2009
    Duty Start Min Time: 00:00          Duty Start Max Time: 23:59
     Trailing Deadhead: No

    Leg Index   Locations   Augment   Rest Facility Class    Equipment

        1         DXBATL        2              Class1            777

Rule Values
            Max Block:  020:00                    Max FDP:  020:00
          Rest Before:  000:00                  Rest After:  000:00
       Hours Rest After:  000:00    Physiological Nights After:  0

Matched Pairings
    ATL:   1032(Dec 01), 1032(Dec 02), 1032(Dec 03), 1032(Dec 04), 1032(Dec 05)
    ATL:   1032(Dec 06), 1032(Dec 07), 1032(Dec 08), 1032(Dec 09), 1032(Dec 10)
    ATL:   1032(Dec 11), 1032(Dec 12), 1032(Dec 13), 1032(Dec 14), 1032(Dec 15)
    ATL:   1032(Dec 16), 1032(Dec 17), 1032(Dec 18), 1032(Dec 19), 1032(Dec 20)
    ATL:   1032(Dec 21), 1032(Dec 22), 1032(Dec 23), 1032(Dec 24), 1032(Dec 25)
    ATL:   1032(Dec 26), 1032(Dec 27), 1032(Dec 28), 1053(Dec 01), 1053(Dec 02)
    ATL:   1053(Dec 03), 1053(Dec 04), 1053(Dec 05), 1053(Dec 06), 1053(Dec 07)
    ATL:   1053(Dec 08), 1053(Dec 09), 1053(Dec 10), 1053(Dec 11), 1053(Dec 12)
    ATL:   1053(Dec 13), 1053(Dec 14), 1053(Dec 15), 1053(Dec 16), 1053(Dec 17)
    ATL:   1053(Dec 18), 1053(Dec 19), 1053(Dec 20), 1053(Dec 21), 1053(Dec 22)
    ATL:   1053(Dec 23), 1053(Dec 24), 1053(Dec 25), 1053(Dec 26), 1053(Dec 27)
    ATL:   1053(Dec 28), 8009(Dec 16)
```

Occasional Administrative Tasks

Access to Functionality

Administrators and scheduler/planners have access to different functionality. Your login determines what level of functionality you can access.

Administrator and Scheduler/Planner Functionality

The following table identifies what functionality is available to each user group. This table describes all of the available functionality. If you don't have permission to access certain functionality, the options are either removed from the interface or grayed out.

Tabs	Scheduler Access	Planner Access
General		
Airline Information	view only	view only
Interface	view and update	view only
Periods	view and update	view only
Load Data	view and update	none

Tabs	Scheduler Access	Planner Access
Config		
Categories	view and update	view only
General Info	view and update	view only
Absence Codes	view and update	view only
ALVs	view and update	view only
Crew	view and update	view only
Pairings	view and update	view only
Bid Manager		
Availability	view and update	view only
Bids		

Tabs	Scheduler Access	Planner Access
Current Bid	view and update	view only
Default Bid	view and update	view only
Preferences	view and update	view only
Run Manager		
Scheduler	view and update	view only
Completed Runs	run / view all reports	run / view all reports
Publish Runs	view and update	
Schedule	run / view all reports	run / view all reports
Roster	run / view all reports	run / view all reports
Reasons	run / view all reports	run / view all reports

Tabs	Scheduler Access	Planner Access
Unstacking	run / view all reports	run / view all reports
Output	view and update	none
Reports		
Bids	run / view all reports	run / view all reports
Trips Pairings	run / view all reports	run / view all reports
Crew	run / view all reports	run / view all reports

Set Interface Parameters

You can set the polling time for the run manager , and you can set the maximum size of filtered lists to prevent excessively long lists from being created. Longer lists take more time to display in the N-PBS Scheduler and the N-PBS Bidder.

To set the interface parameters:

1. Switch to the General tab.

2. Switch to the Interface tab, if it isn't currently displayed.

3. Make changes to the interface parameters.

- the polling time for the run manager tells the N-PBS Scheduler how often, in minutes, to check and update the status of any in-process and completed runs

- the maximum list size identifies the maximum number of items that can be returned in a filtered list, such as pairings; if the number of items exceeds this value, the N-PBS Scheduler displays a dialog instructing the user to narrow their search criteria further

4. Select Save to save your changes.

You can reset the parameters to their default values by clicking on the Reset button.

Manage Bid Periods

You need to create bid periods before you can do anything else in the N-PBS Scheduler. Everything in the N-PBS Scheduler is related to a bid period, and the bid period is the central organizing feature.

Create New Bid Periods

Bid periods are usually created on a yearly basis, but you can create bid periods at any time.

N   Your bid periods should be discrete, and not overlap each other.

To create a new bid period:

1. Switch to the **Periods** tab.

2. Click the **Add** button. The N-PBS Scheduler displays the Add Period screen.

3. Enter a name for the period.

4. Select the start date and the end date for the period.

5. Click **Save**.

    The N-PBS Scheduler creates the period and adds it to the list of periods.

Manage Categories

Categories divide crewmembers by base, position, and equipment category. You create the categories you need. Categories cannot be edited or deleted once they have been created.

The Categories tab is divided into four sections, Base, Equipment Classification, Crew Classification and Categories. Each section has its own Add, Edit, and Delete buttons to manage information for a category. Before you can add a category in the Categories section you must add the base, crew and equipment classifications.

Delete Bid Periods

You can delete an unprepared bid period. Prepared, active, and deactivated bid periods cannot be deleted.

To delete an unprepared bid period:

1. Switch to the **Periods** tab.

2. Select the bid period you want to delete.

3. Click the **Delete** button. The N-PBS Scheduler warns you that deleting the bid period also deletes all data relating to it, and asks you to confirm the deletion.

4. Click **OK**.

    The N-PBS Scheduler deletes the period and all related data.

Manage Employee Data

You can view lists of crewmembers, and search for, update, and manage crewmember data. You can view lists of all crewmembers for a bid period, or all crewmembers in a specific category. You can also update all of the data related to a specific crew member, including:

- language qualifications

- categories

- pre-awarded absences and pairings

- shadow, reduced block, and ineligible bidder status

 You can click the Hide Search button to hide the search pane and make more room for the crew pane. Click the Show Search button to display the search pane again.

View the Crew Report

The Crew report displays a list of all the crewmembers for a selected bid period, for all categories or for a specific category. This report lets you find the employee numbers for crewmembers you want to view or manage.

To view the crew report:

 This report is also available under the Reports tab.

1. Switch to the **Crew** tab.

2. Switch to the **Crew Report** tab, if it isn't currently displayed.

3. Select the category you want to view crewmembers for. If you want to view crewmembers for all categories, select **ALL** from the drop-down list.

4. Select the sort criteria you want the report to use: seniority or employee number.

5. Click the **Generate Report** button.

   The N-PBS Scheduler generates the report and displays the list of crewmembers in a separate window.

View a Crewmember

Block Time Summaries when selected using the checkbox shows all imported Block Time for a crewmember.

To view a specific Crewmember's data:

1. Switch to the **Crew** tab.

2. Switch to the **Crewmember Details** tab, if it isn't currently displayed.

3. Enter the Crewmember's employee number.

4. If you don't know the crewmember's employee number, you can view the crew report to find it or you can click the **Advanced** Button.

5. Click the **Search** button.

   The N-PBS Scheduler displays the crewmember's details.

View a Crewmember Using Advanced Search

You can view Crewmember information using their partial employee number or entering a Crewmember's name.

To view a specific Crewmember's data using advanced search:

1. Switch to the **Crew** tab.

2. Switch to the **Crewmember Details** tab, if it isn't currently displayed.

3. Click on the **Advanced** button.

4. Enter the Crewmember's employee number, partial number, name or the other search criteria available.

5. Click the **Search** button.

   The N-PBS Scheduler displays the crewmember's details.

Clicking on the Search button without entering any search criteria may cause some issues. See the information below.

If you click the Search button without entering any search criteria the N-PBS Scheduler will return all Crewmembers in the database. This may cause the web browser to perform slowly if you have a large number of crewmembers to return. You may see the message below.
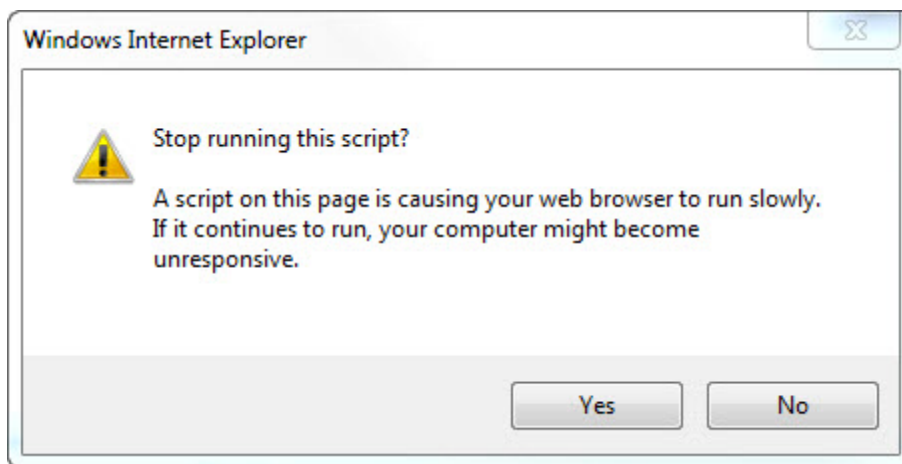
If you click **No**, the search continues and the web browser may take a few minutes to return all Crewmembers.

If you click **Yes**, the search stops and you will not be able to perform any more searches until you log out and log back in.

Add a Crewmember

To add a crewmember:

1. Switch to the **Crew** tab.

2. Switch to the **Crewmember Details** tab, if it isn't currently displayed.

3. Click the **Add** button. The Add Crew page appears.

4. Enter the crewmember's employee number, first name, and last initial.

5. Select the checkboxes below the fields to enter an employee's name and number.

   Note: Not all options listed here are available to all customers. Contact your Account Manager for more information.

User Type: Bidder or Scheduler, if bidder the crewmember must be added to a category - the crewmember will be directed to the bidder interface with their category information loaded when logging in

if you choose scheduler, the crewmember will be directed to the administrator interface when logging in

Exempt From Language Unstacking: when selected the crewmember is exempt from language unstacking

Eligible: when selected a crewmember is eligible to receive a line, if deselected the crewmember will not receive a line but will be included in all reports - this will indicated on the wide print report as IB

Use Reduced Block: when selected the crewmember will built line to reduced block credit windows

Line Check Airman: when selected the crewmember is flagged as a line check airman

Green: when selected the crewmember is flagged as green - green indicates that a crewmember is inexperienced. The N-PBS Scheduler will not put two crewmembers flagged as green on the same pairing

PDTP: two crewmembers marked as PDTP cannot be awarded the same flight

Credit Carry-In/Credit Carry-In Days: these two fields are used to manually assign carry-in credit or days to a crewmember

Eligible for Training: when selected the crewmember is eligible to receive a training line - only used with the training module

A user with the CrewAdmin type has the following abilities:

- can complete runs
- can look at any and all normal reports

- can submit bids through the new UI
- can use the line simulator
- can view rules
- can view other users
- can view categories/absences/etc
- can view pairing information
- can export bids
- can edit bids from within the admin UI
- cannot edit rules
- cannot complete imports or change period information
- cannot change categories/absences/etc
- cannot change user information
- cannot edit activities for users
- cannot edit pairings
- cannot add/change/remove bidding info
- cannot change bid preferences
- cannot import new bids
- cannot change the status of runs

6. Enter the crewmember's language qualifications.

   a. Select a language from the drop-down list.

   b. Click **Add**.

7. Enter any aircraft restrictions for the crewmember.

   a. Select an aircraft type from the drop-down list.

   b. Click **Add**.

8. Enter any location restrictions for the crewmember.

   a. Type an airport code in the location field.

   b. Click **Add**.

9. Enter any position restrictions for the crewmember.

   a. Select a position from the drop-down list.

   b. Click **Add**.

10. Add the categories that the crewmember belongs to.

    a. Click the **Add** button in the Categories pane.

    b. Select the category to add from the drop-down list.

    c. Enter the crewmember's seniority.

    d. Check either the **Eligible** or **Shadow Bidder** check box, as appropriate.

    e. Check the **Reduced Block** check box, if appropriate.

    f. Check the **Line Check Airman** check box, if appropriate.

    g. Click **OK**.

11. Add Shadow Dates if appropriate.

    a. Enter the start date of the shadow bidder using the drop down menu.

    b. Enter the end date of the shadow bidder using the drop down menu.

    c. Click **Add** to add the shadow bidder.

    d. Click **Remove** to delete the shadow bidder. **You must chose a date to enter a shadow bidder.**

12. Click **Save** to save the crewmember's information and return to the **Crewmember Details** tab.

Edit a Crewmember

You can also edit certain data for multiple Crewmembers at once.

You can edit three aspects of a Crewmember's data:

- change their information, qualifications, and restrictions

- add a pre-awarded absence

- pre-assign a pairing

Select a Crewmember to Edit

Before you can edit a Crewmember, you need to display their details.

To display a crewmember's details:

1. Switch to the **Crew** tab.

2. Switch to the **Crewmember Details** tab, if it isn't currently displayed.

3. Enter the Crewmember's employee number.

4. Click the **Details** button.

    The N-PBS Scheduler displays the Crewmember's details.

Change a Crewmember's Details

To change a Crewmember's details:

1. Click on the Crewmember's details to highlight them.

2. Click the **Edit** button. *The N-PBS Scheduler displays the Crewmember's details.*

3. Make changes to the Crewmember's details.

- You can add qualifications and restrictions by selecting them from a drop-down list or typing them into the appropriate field and then clicking the appropriate Add button.

- You can remove qualifications and restrictions by clicking on the item and then clicking on the appropriate Remove button.

- You can add and edit categories for a Crewmember by following these steps:

4. Click **Add** in the Categories pane, or select an existing category and click Edit.

5. Select the category to add from the drop-down list.

N You can only add a new category that is compatible with the existing categories assigned to the Crewmember.

6. Enter the Crewmember's seniority.

7. Check the **Eligible** check box.

8. Click **OK**.

9. Click **Save** to save your changes and return to the Crewmember Details tab.

Delete a Crewmember

To delete a Crewmember's data:

1. Click on the Crewmember's details to highlight them.

N This procedure assumes that you have already selected a Crewmember using the procedure in the Select a Crewmember to Edit section, above.

2. Click the **Delete** button. The N-PBS Scheduler asks you to confirm that you want to delete the Crewmember's data.

3. Click **OK.** The N-PBS Scheduler removes the Crewmember from the list and deletes their data.

Bulk Edit Information for Multiple Crewmembers

The only search criteria that you can use on this screen is numbers. You can only bulk edit the following fields: Exempt From Language Unstacking, Eligible, Use Reduced Block, Line Check Airman and Green. You cannot assign pairings or absences to multiple crewmembers.

To bulk edit multiple crewmembers:

1. Switch to the **Crewmember Details** tab.

2. Enter search criteria.

3. Click the **Search** button. Search results are returned.

4. Click on **Select All** or use Ctrl + click to select multiple Crewmembers.

5. Click the **Edit** button. The Bulk Editing screens opens.

6. Edit Crewmember information.

7. Click on the Save button.

A. The interface displays the number of Crewmembers selected.

Change Crewmember Bids

Administrators can access the Bidder interface to change the regular and regular default bids of any crewmember. When you change and submit a crewmember's bid, the confirmation number changes. The changed confirmation number is the only indication, aside from the changed bid itself, that the bid has been changed by an administrator. However, the N-PBS Scheduler also keeps track of the administrator who made the changes.

To change a crewmember's bid:

1. Switch to the **Bid Manager** tab.

2. Switch to the **Bids** tab if it isn't currently displayed.

3. Enter the employee number of the crewmember whose bid you want to change and click **Change Bids**. The N-PBS Bidder interface appears, with **Admin Mode** visible in red letters.

4. Change the crewmember's bid. See the N-PBS Bidder Bidder's Guide for details on changing and submitting bids.

5. Make sure that you click the **Submit All Bids** button to save the changes you made.

6. Click Logout to log out of the N-PBS Bidder interface and return to the N-PBS Scheduler.

7. Click the **List** button to view the changes you made to the crewmember's bids.

Delete a Crewmember

To delete a Crewmember's data:

> **N** This procedure assumes that you have already selected a crewmember using the procedure in the Select a Crewmember to Edit section.

1. Click on the **Crewmember's** details to highlight them.

2. Click the **Delete** button. The N-PBS Scheduler asks you to confirm that you want to delete the Crewmember's data.

3. Click **OK**

   The N-PBS Scheduler removes the Crewmember from the list and deletes their data.

Change a Crewmember's Home Base

1. To change a crewmember's home base:

2. Select the crewmember's category.

3. Click the **Edit** button.

4. Select a new category, with the correct home base, from the Category drop-down list.

5. Click **OK** to return to the **Details** tab.

6. Click **Save** to save your changes and return to the Crew Member Details tab.

If you change a crewmember's home base, and then change it back to the original home base, the N-PBS Scheduler restores all regular and default bids associated with the original home base category.

Change a Crewmember's Password

You can change a crewmember's login password. Initial crewmember passwords are usually set to the employee number. You can reset the password to either the employee number or to something else.

To change a crewmember's password:

1. Switch to the **Crew** tab

2. On the **Crewmember Details** tab, enter the crewmember's employee number and click the Details button.

3. Select the crewmember details and click the **Edit** button.

4. Switch to the **Change Password** tab.

5. Enter a new password.

6. Enter the new password again to confirm it.

7. Click the **Change Password** button. The crewmember's password is updated and the Settings tab displays a message telling you your password was changed successfully.

8. Click **Done** to return to the **Crewmember Details** tab.

Password Guidelines

These guidelines can be used to help crewmembers select a more secure password.

- Passwords must be at least six characters long.

- You can use any letters, numbers, and symbols (including spaces and dashes), except for:

- ampersand (&)

- angle brackets (< and >)

- single or double quotation marks ('r; or "r;)

- Mix numbers, uppercase and lowercase letters, and symbols in your password. "r;B1d_$ys3m" is a much more secure password than ";BidSystem".

Pre-Assign a Training Pattern

To pre-assign a training pattern to a Crewmember:

1. Switch to the **Crew** tab

2. Switch to the **Crewmember's Detail** tab, if it isn't currently displayed.

3. Enter an Employee Number and click **Search**.

4. Select the Employee.

5. Click the **Activities** button.

6. Select the **Add** button. The add activity panel opens, Add Absence opens by default.

7. Select Training Pattern from the Activity Type drop-down menu.

8. Select the training identifier.

9. Select the operating date

- if you want to edit an existing training pattern, select the pairing and click the Edit button

- if you want to delete a training pattern, select the pairing and click the Delete button

If you clicked **Add** or **Edit**, the **Add Activity** panel appears. If you clicked **Delete**, the N-PBS Scheduler removes the training pattern from the list.

10. Click **Done** to return to the **Crewmember Details** tab.

Pre-Assign a Pairing

Block Time Summaries when selected using the checkbox shows all imported Block Time for a crewmember.

To pre-assign a pairing to a Crewmember:

1. Switch to the **Crew** tab

2. Switch to the **Crewmember's Detail** tab, if it isn't currently displayed.

3. Enter an Employee Number and click Search.

4. Select the Employee.

5. Click the **Activities** button.

6. Select the **Add** button. The add activity panel opens, Add Absence opens by default.

7. Select **Pairing** from the Activity Type drop-down menu.

8. Select the category from the Category drop-down menu.

9. Enter a pairing number

10. Select a position from the Position drop-down menu

11. Select the date of the pairing

12. Select **Save** to assign the pairing.

    a. if you want to edit an existing pairing, select the pairing and click the Edit button

    b. if you want to delete a pairing, select the pairing and click the Delete button

    If you clicked **Add** or **Edit**, the **Add Activity** panel appears. If you clicked **Delete**, the N-PBS Scheduler removes the pairing from the list.

13. Click **Done** to return to the **Crewmember Details** tab.

Import or Export Email Addresses

Administrators can now import a .csv file that will update email addresses. The new functionality is located in the Crew screen in its own tab labeled Email.
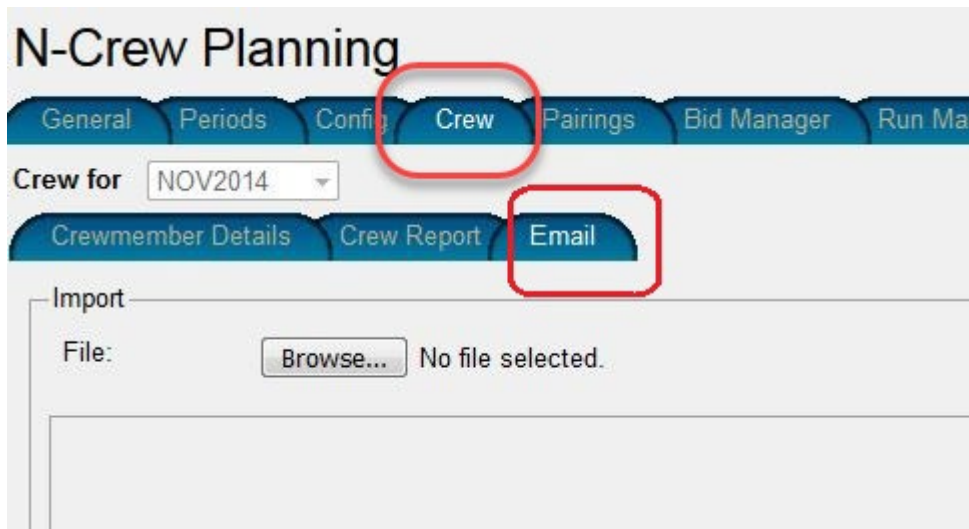
From the Email tab, administrators can export or import.

- To import, Use the Browse... button to locate the .csv file to use, then click the Import button at the lower right of the screen.

- To export, click the Export button, and a .csv file is generated to save to a location of your choice.
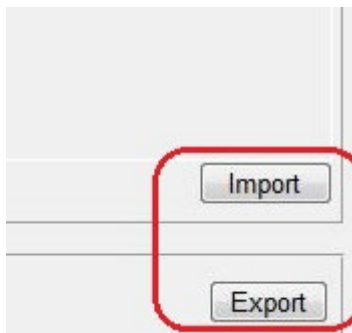
When importing, the data should be structured into two columns, Employee# and Email:

	A	B	C	D
1	Employee#	Email		
2	19600	john.smith@airline.com		
3	25832	sandra.johnson@airline.com		

Exported data files can be used as a template for future imports if needed. Import data files should include all PBS bidders from the active period, even if they do not currently have an email address on file.

The behavior of the import process is as follows:

- Only the users on the import file are updated.

- Any user in PBS but not included in the import file will be ignored (users are not updated if they already have an email in PBS).

- The import will overlay any existing data in the system.

- If a user already has an email in PBS, but the import has a different email, the existing email will be replaced with the email in the import.

- If person from import file does not exist in the active period a warning appears in the Import Log.

Note that import/export can only be performed in an active period.

Manage Pairings

You can search for specific pairings in the N-PBS Scheduler, and view or edit their details.

You can also view a list of all pairings for a bid period, or all the pairings for a specific category in the bid period. See Pairings Report or details on creating this report.

View the Crew Report

The Crew report displays a list of all the crewmembers for a selected bid period, for all categories or for a specific category. This report lets you find the employee numbers for crewmembers you want to view or manage.

To view the crew report:

N   This report is also available under the Reports tab.

1. Switch to the **Crew** tab.

2. Switch to the **Crew Report** tab, if it isn't currently displayed.

3. Select the category you want to view crewmembers for. If you want to view crewmembers for all categories, select **ALL** from the drop-down list.

4. Select the sort criteria you want the report to use: seniority or employee number.

5. Click the **Generate Report** button.

   The N-PBS Scheduler generates the report and displays the list of crewmembers in a separate window.

View a Pairing

To view a specific pairing in the N-PBS Scheduler:

1. Switch to the **Pairings** tab.

2. Switch to the **Pairings Details** tab, if it isn't currently displayed.

3. Enter the pairing number in the appropriate field.

4. Select the base from the drop-down list and click the **Details** button.

   The N-PBS Scheduler displays the pairing details.

Manage Categories

To add a category:

1. Switch to the **Config** tab.

2. Switch to the **Categories** tab, if it is not currently displayed.

3. Click the **Add** button in the Categories pane.

4. Enter the category details.

   a. select the base for the category

   b. select the equipment classification for the category

   c. select the crew classification for the category

5. If required, add any parent categories. You can have more than one parent category. A parent category means that a run for the parent category must be complete before this category can be run.

   a. select a parent category from the drop-down list.

   b. check the Merge with Run Data check box if you want to merge the parent category data with the data from this category when this category is run. Merge with Run Data means you only have to publish the run for this category, which also contains the data for all parent categories.

   c. click the **Add** button to add the parent run to the new category.

6. Carefully double-check all of your settings, because you can't edit or delete categories once they've been created.

7. Click **Save**.

   The N-PBS Scheduler creates the new category and adds it to the categories list.

Edit a Category

To edit a category:

1. Switch to the **Config** tab.

2. Switch to the **Categories** tab, if it isn't currently displayed.

3. Select the Category to edit. The selected category is highlighted blue.

4. Click **Edit** in the Categories section.

5. Make the required changes to the category.

6. Click **Save**.

Manage Bases

Add a Base

To add a base:

1. Switch to the **Config** tab.

2. Switch to the **Categories** tab, if it isn't currently displayed.

3. Click the **Add** button in the Base section. The Add Base screen appears.

4. Enter the base details.

5. Click **Save**.

    The base code appears at the bottom of the list in the Base section of the Categories tab.

Delete a Base

To delete a base:

1. Switch to the **Config** tab.

2. Switch to the **Categories** tab, if it isn't currently displayed.

3. Select the base to edit. The selected base is highlighted blue.

4. Click **Delete** button in the Base section. A dialogue box appears asking you to confirm the deletion.

5. Click **OK** in the dialogue box.

Edit a Base

N You can only edit the colocation for a base. If you need to change the base, location or domicile code details you must create a new base.

To edit a base:

1. Switch to the **Config** tab.

2. Switch to the **Categories** tab, if it isn't currently displayed.

3. Select the base to edit. The selected base is highlighted blue.

4. Click **Edit** in the Base section.

5. Enter the colocation

6. Click **Add**. The colocation appears in the text area below.

7. If necessary, select the colocation you want to delete. The selected colocation is highlighted blue.

8. Click **Remove**. The colocation is removed from the text area.

9. Click **Save**.

Manage Classifications

Add Equipment Classification

To add equipment classification:

1. Switch to the **Config** tab.

2. Switch to the **Categories** tab, if it isn't currently displayed.

3. Click the **Add** button in the Equipment Classification section. The Add Equipment Classification screen appears.

4. Enter the equipment details

5. Click **Save**.

   The equipment classification appears at the bottom of the list in the Equipment Classification section of the **Categories** tab.

Edit Crew Classifications

You can only edit the crew type and position. If you need to change any other details you must create new a crew classification.

To edit a crew classification:

1. Switch to the **Config** tab.

2. Switch to the **Categories** tab, if it isn't currently displayed.

3. Select the **Crew Classification** to edit. The selected crew classification is highlighted blue.

4. Click **Edit** in the Crew Classification section.

5. If necessary, enter the crew type from the drop-down menu.

6. Enter the position.

7. Click **Add**. The position appears in the text area below.

8. If necessary, select the position you want to delete. The selected position is highlighted blue.

9. Click **Remove**. The position is removed from the text area.

10. Click **Save**.

Add a Crew Classification

To edit equipment classification:

1. Switch to the **Config** tab.

2. Switch to the **Categories** tab, if it isn't currently displayed.

3. Click the **Add** button in the Crew Classification section. The Add Crew Classification screen appears.

4. Enter the classification details.

5. Click **Save**.

   The classification appears at the bottom of the list in the Crew Classification section of the Categories tab.

Edit Crew Classifications

You can only edit the crew type and position. If you need to change any other details you must create new a crew classification.

To edit a crew classification:

1. Switch to the **Config** tab.

2. Switch to the **Categories** tab, if it isn't currently displayed.

3. Select the **Crew Classification** to edit. The selected crew classification is highlighted blue.

4. Click **Edit** in the Crew Classification section.

5. If necessary, enter the crew type from the drop-down menu.

6. Enter the position.

7. Click **Add**. The position appears in the text area below.

8. If necessary, select the position you want to delete. The selected position is highlighted blue.

9. Click **Remove**. The position is removed from the text area.

10. Click **Save**.

Manage Absence Codes

Absence codes identify absence types and the effect that each absence type has on a crewmember's line credit. You can view the details of the absence codes currently in use, and add, edit, and delete absence codes.

View Absence Codes

To view absence codes:

1. Switch to the **Config** tab.

2. Switch to the **Absence Codes** tab, if it isn't currently displayed.

3. Select the appropriate crew classification to view absence codes for.

4. Scroll through the list to view all absence codes and related details.

Add an Absence Code

To add an absence code:

1. Switch to the Config tab.

2. Switch to the Absence Codes tab, if it isn't currently displayed.

3. Select the appropriate crew classification.

4. Click the Add button.

5. Enter the absence code details.

    ● enter the absence code and description

    ● set the time and credit parameters

    ● select any necessary additional absence code parameters

6. Click Save.

    The N-PBS Scheduler creates the new absence code and adds it to the absence code list.

Absence Code Parameters

Code: code attributed to the absence

Description: description of the absence

Time and Credit Parameters

Start Time: start time of the absence

End Time: end time of the absence

Line Credit Reduction: this value reduces the minimum window for each day the crew member has the absence

For example: a 5 day military leave with 5:00 Line Credit Reduction reduces the Minimum Window by 25 hours, thus giving the crew member a shorter block

Line Credit Increase: this value increases the minimum window

Additional Parameters

Work For Duty: when selected the absence counts as duty, not rest - absences with this checkbox selected do not count towards minimum days off - See Day Off below

Work For Days On Off: when selected the absence counts as a day on in day on sequences- absences with this checkbox selected do not count towards minimum days off - See Day Off below

Prorated Days Off: when selected min days off is reduced using proration tables - contains two sub-checkboxes, Pairing and Reserve

Pairing: when selected min days off is reduced using proration tables, this applies to pairing lines

Reserve: when selected min days off is reduced using proration tables, this applies to reserve lines

Rest Rules Apply: when selected rest rules apply to this absence

Training: when selected the absence is a training item

Vacation: when selected the absence is a vacation item

Day Off: when selected the absence counts towards minimum days off in a period

Slidable: when selected the absence is slidable

Group: / Label: Group and Label work together: when Group is selected, a slidable absence is is grouped with another absence with other absences that have the same name in Label text field

Historical Reserve Day: when selected the Reserve Minimum Days On rule will recognize any instances of this absence that are in history as being reserve days, so that if they occur at the very end of history they will count towards the minimum, regardless of whether the parameter "Count Pre-Awards Towards Min" is true or false

Assign an Absence to a Crewmember

To assign an absence to a Crewmember:

1. Switch to the **Crew** tab

2. Switch to the **Crewmember's Detail** tab, if it isn't currently displayed.

3. Enter an Employee Number and click **Search**.

4. Select the Employee.

5. Click the **Activities** button.

6. Select the **Add** button. The add activity panel opens, Add Absence opens by default.

7. Select **Absence** from the Activity Type drop-down menu.

8. Select the category from the Category drop-down menu.

9. Select the absence from the Absence Code drop-down menu.

10. Select the start and end date of the absence.

11. Select the start and end time of the absence.

12. Click Save to assign the absence code.

    a. if you want to edit an existing pairing, select the pairing and click the **Edit** button

    b. if you want to delete a pairing, select the pairing and click the **Delete** button

    If you clicked **Add** or **Edit**, the **Add Activity** panel appears. If you clicked **Delete**, the N-PBS Scheduler removes the pairing from the list.

13. Add or modify the pairing details. You need to enter or check these details:

    ● pairing number (if you are adding a new pairing, enter the number and click list to populate the rest of the available fields)

    ● position

    ● language

    ● date

14. Click **Done** to return to the **Crewmember Details** tab.

Delete an Absence Code

You can delete an absence code as long as no absences in the current period, or in future periods, are associated with the absence code.

To delete an absence code:

1. Switch to the **Config** tab.

2. Switch to the **Absence Codes** tab, if it isn't currently displayed.

3. Select the appropriate crew classification.

4. Select an absence code to delete.

5. Click the **Delete** button. The N-PBS Scheduler asks you to confirm that you want to delete the category.

6. Click **OK**.

   The N-PBS Scheduler removes the absence code from the absence codes list.

View Bid Preferences

You can view the parameters that place limitations on bid construction.

To view the bid preferences:

1. Switch to the **Bid Manager** tab.

2. Switch to the **Preferences** tab, if it isn't currently displayed.

3. View the bid preference settings.

   - the maximum number of bid lines sets the largest number of bid preferences that a single bid can contain

- the maximum number of Ifs sets the largest number of conditions that a crewmember can place on a single bid preference

- the maximum number of employees sets the largest number of separate employee numbers that can be included on a single bid preference (i.e. Avoid Employee bid preference)

Set Bid Preferences

Set Bid Preferences

You can adjust the parameters that place limitations on bid construction. You can also reset the bid preferences to the default values.

To set the bid preferences:

1. Switch to the **Bid Manager** tab.

2. Switch to the **Preferences** tab, if it isn't currently displayed.

3. Make changes to the bid options and bid preference variables.

   - the maximum number of bid lines sets the largest number of bid preferences that a single bid can contain; the system-generated bid preferences are not included in this number

   - the maximum number of Ifs sets the largest number of conditions that a crewmember can place on a single bid preference

   - the maximum number of employees sets the largest number of separate employee numbers that can be included on a single bid preference (i.e. Avoid Employee bid preference)

4. Click **Save** to save your bid preference changes.

   The N-PBS Scheduler saves your changes.

If you reduce the maximum number of bid lines after longer bids have already been submitted, these longer bids will not be affected. However, crewmembers cannot add additional lines to these bids until they remove enough lines to get under the new maximum that you set. They can continue to edit existing lines, even if the lines are above your new maximum value.

Reset Bid Preferences

To reset the bid preferences to their default values:

1. Switch to the **Bid Manager** tab.

2. Switch to the **Preferences** tab, if it isn't currently displayed.

3. Click the **Reset** button.

    The N-PBS Scheduler reverts all bid preference settings to the default values.

Refresh Data

You can refresh data at any time, but you need to remember that you will lose any changes that you made to the data type you are refreshing, such as pairings or Crewmember data.

When you refresh employee data, the N-PBS Scheduler ensures that any Current and Default bids are preserved during the import process.

To refresh data, follow the procedure in Import Data.

Print Information

Print Information

You can print any details that are visible on the screen. You can also print the reports that appear in separate windows.

To print information:

1. Make sure that the information you want to print is visible.

2. Click the **Print** button.

If you want to print a long list of detailed information, you need to scroll to each section of the list so that it's visible in the interface pane and then click Print.

Historical Data

The N-PBS Scheduler keeps up to 13 months of data available at all times. Older data is archived at Navtech.

Reserve

Reserve Call Type

Reserve Call Types are added to each person with assigned reserve days, and are edited using the Administrator User Interface, under the Config tab and Reserve sub-tab.

Schedule reports can be produced, and they include the block of time for each activity (typically a pairing, reserve or absence), "Start Time" and "End Time" to the time range. Schedule reports are produced in PDF format, accessible through the Administrator User Interface.

Files can also be exported in a variety of formats for importing into the customer's Day-Of system. These export files indicate which Reserve Call Type was assigned to each person in addition to the Start and End times.

View Reserve Call Types

To view the configured Reserve Call Types, navigate to Config > Reserve in the navigation tabs:

Call Types are listed, along with the settings for each in the respective columns:

- Name

- Reserve Status

- Export Code

- Start Time

- End Time

- Categories

Add a Reserve Call Type

To Add a Call Type:

1. Navigate to **Config > Reserve** in the navigation tabs

2. From the right side pane, select Add to add a new call type, or Edit to edit an existing Call type after selecting it from the main window. The Add Call Type function displays:

3. Enter the relevant information for the Call Type, or edit the pre-filled data:

- Enter a **Name** for the call type of your choice.

- Designate a **Reserve Status** by selecting either the **Long** or **Short** radio button of the respective choice.

- Enter an **Export Code**.

- Enter a *Start Time* or use the arrow buttons to step through time setting options.

- Enter an **End Time** or use the arrow buttons to step through time setting options.

Note: If the Start Time field is "0:00" or "00:00", it is assumed this is the start of the day. If the End Time field is "0:00" or "00:00", it is assumed this is the end of the day. If the End Time field is not "0:00" or "00:00", the Start Time must precede the End Time.

4. Apply **Categories** to the Call Type by using the double arrow buttons to move the desired category from the **Excluded** pane to the **Applied** pane.

5. Click **Save**.

Line Construction Simulator

Line Simulator

The Line Construction Simulator allows you to check the validity of hypothetical lines against the trip rules configured.

Layout of the Line Simulator tab

The Line Simulator for – Drop-Down Menu to Select the Period

Category – Drop-Down Menu to Select Category

Employee Number – Text box to enter an employee number

Copy Line button – displays the employee's line (if one exists) for the selected Period

The window pane below shows all of the relevant information for the Pairing, Training Pattern or Absence

If the line validation fails, the Name pane shows the name or number of the violation and the Candidates pane shows possible substitutions

Add button – add a Pairing, Training Pattern or Absence

Edit button – edit any selected Pairing, Training Pattern or Absence

View button – view pairing information for a pairing entered in the Line Simulator, information opens in a separate window - you can only view information for one pairing

Clear button – removes the selected line item and any Pairing, Training Pattern or Absence indicated on that line

Validate button – sends the line to the N-PBS Scheduler for validation

Acclimation button - This feature will show an acclimation report of each duty in the current period plus 7 calendar days prior to the current period.

FRMS Rule Exceptions

Pairing Rule Parameters FAR 117_11	
Enforce Max Block From Exceptions Table	• when checked, the N-PBS Scheduler will enforce the max flight time from the Exceptions Table - a pairing that is subject to

Pairing Rule Parameters FAR 117_11

	an exception value and has been constructed illegally to exceed that exception value will be illegal to award in N-PBS • when unchecked, the N-PBS Scheduler will not enforce the max flight time from the Exceptions Table - a pairing that is subject to an exception value and has been constructed illegally to exceed that exception value will be legal to award in N-PBS
Enforce Max Block For Augmented Duties	• when checked, the N-PBS Scheduler will enforce the max flight time from the Exceptions Table - a pairing that has been constructed to exceed the maximum on an augmented duty will be illegal to award in N-PBS • when unchecked, the N-PBS Scheduler will not enforce the max flight time from the Exceptions Table - a pairing that has been constructed to exceed the maximum on an augmented duty will be legal to award in N-PBS

Evaluate a Crewmember's Line

To evaluate a Crewmember's line:

1. Complete and publish a run

2. Select a period

3. Select the category

4. Enter an employee number from the completed and published run – if no run is published only historical and pre-awarded activities will appear in the line

    You will receive an error message if you have entered an incorrect employee number or if you have selected the wrong category for the employee number entered

5. Click the **Copy Line** button

6. The employee's line populates the pane below

7. Once the employee's line has been populated you can add, edit or delete activities to evaluate different awarding scenarios

Line Simulator

To add activities to check a line:

1. Select a period

2. Select a category, you don't need to enter an employee number to evaluate a hypothetical line

3. Click the **Add** button, the Add button is unavailable until you select a category. The add pane opens on the right-hand side of the screen

4. Select the **Activity Type** from the drop-down menu (Add Absence is selected by default).

5. Select the relevant information for the activity and click **Save.**

6. Repeat Steps 3 -5 until you have added all of the activites you want to validate.

7. You can edit or delete any activity by highlighting it and selecting the **Edit** or **Delete** button. The **Clear** button removes all of the activities.

8. Click the **Validate** button.

Line Validation

After you have the selected the Validate button the N-PBS Scheduler will display a prompt indicating that the line is valid or invalid.

Valid Line

Invalid Line

Glossary

<

<: before a time of day, or less than a specific value

=

=: at or equal to a specific value

>

>: after a time of day, or greater than a specific value

A

Absences: scheduled events preventing a bidder from being available for flying duties at a particular time; absences include vacation, maternity leave, training, etc

Absences with Credit: absences that require a virtual credit for block credit and pay purposes; the virtual credit counts towards the block credit. Ex: PTV, MIC

Absences without Credit: absences where you are not available for duty but receive no credit to the block credit. Ex: LOA, MIL

Avoid Pairing Bid Preference: a bid preference that describes unwanted pairings or pairing criteria and excludes pairings from consideration see also Award Pairing, Instruction, Set Condition, Time Off bid preferences

Award Pairing Bid Preference: a bid preference that describes preferred pairings or pairing criteria and includes pairings for consideration see also Award Pairing, Instruction, Set Condition,Prefer Off bid preferences

Award Pairings Bid Preference (system generated): a bid preference added automatically to the end of every bid; if a legal block cannot be created after the

system-generated Award Pairings bid preference has been processed, Award Line Reserve instructs the PBS Scheduler to try to award the bidder a reserve block

B

Base: the location a crew member is assigned to see also Co-terminal Base

Bid: a list of bid preferences that you submit, describing desired work patterns, types of duties, and days or times of day off

Bid Group: a list of bid preferences that are grouped and processed together; bid groups are independent of each other and always begin with Start Pairings or Start Reserve

Bid Month: see Bid Period

Bid Period: the calendar month or duration of days that the block is being built for i.e. January 31st to March 1st; bid periods may be called bid months The bid period may or may not coincide with a particular calendar month.

Bid Preference: a single, numbered line of a bid representing a single request see also Award Pairing, Instruction, Set Condition, Time Off bid preferences

Block: the pairings or reserve days and all other activities that you are assigned to work in the bid period; blocks may be called lines, lines of time, rosters, schedules or awards

Block Credit: the value of all the duties on your schedule for a given bid period; may be called total credit or credit value

Block Time: the time beginning when an aircraft first moves for the purpose of flight or repositioning and ending when the aircraft comes to a stop at the next destination or at the point of departure

Block Window: see Credit Window

C

Calendar Day: a 24-hour period, generally from midnight to midnight (a pairing with a
2345 block-in and 15-minute release does not infringe on the following day)

Category: the combination of a crew member's position and base

Charter: flights that take place outside normal schedules

Check In Time: the time that a pairing starts and the crew member must report for
duty

Check Out Time: the time that a pairing ends and the crew member is no longer on
duty

Co Terminal: a single base that operates out of multiple airports (i.e. JFK/LGA,)

Comma(,): used as a separator between multiple list items in a bid preference, such
as dates, stations, pairing numbers, etc Commas in Award Pairings, Avoid
Pairings and Prefer Off bid preferences are interpreted as "and/or". If your bid
preference is Award Pairings If Landings In LAS,DCA, the PBS Bidder may award
pairings that land in LAS, and pairings that land in DCA, and pairings that land in
both LAS and DCA. Both destinations have the same importance, so the PBS
Bidder may trade a LAS for a DCA during the awarding process.

Completion Attempt: a pass through a crew member's bid, awarding pairings
according to their preferences to give them a complete block Each time the bid is
changed, usually when a bid preference is removed by Denial Mode, a new
completion attempt begins

Coverage Awards: the process of ensuring that flight duty periods are adequately
covered by assigning pairings to crew members, potentially creating a situation

in which bids are denied Because pairings vary in length, and interact with non-overlapping pairings due to legality rules, solving a stack for one critical period may result in a stack being created during another critical period. As a result, it may appear that seniority has been violated by, for example, a junior crew member holding a day off specifically requested by a more senior crew member when, in fact, there was no way to combine the flight duties so that the work was covered and rules regarding rest and max duty were respected

Credit: a value associated with an activity, usually measured in hours and minutes

Credit Window: the range of credit values that the PBS Scheduler uses to build blocks that satisfy work coverage and FSM requirements. There are three Credit Windows: Minimum, Normal and Maximum

Critical Period: a specific time period determined by how pairings and rules interact For example, a critical period may occur from 23:30 December 24th to 01:30 December 26th

Current Bid: the bid you submit for the current bid period; the PBS Scheduler uses the information in this bid to build the crewmember's block for the bid period

D

Day: a calendar day beginning at 00:00 and ending at 23:59

Default Bid: a generic bid used to construct your block for the current month if you have not submitted a regular bid; default bids may be called standing bids or standby bids

Deniable Bid Preference: a bid preference which may be removed through Denial Mode. Set Condition, Prefer Off or Avoid Pairingsbid preference

Duty Period: the elapsed time from report to release; duty period may also be called duty duration

F

Federal Aviation Regulations (FAR): rules of duty time and rest that must be applied when creating schedules

I

Instruction Bid Preference: a bid preference that provides special instructions to manage the way the PBS Scheduler processes your bid; instruction bid preferences (Forget and Redo From) are most often used to remove restrictions if the PBS Scheduler could not award you a complete block honoring all of your bid preferences see also Award Pairing, Instruction, Set Condition, Time Off bid preferences

L

Landing: a point at which the plane you are flying on touches down at a station

Layover: a rest activity in a pairing, with time spent at a hotel at a station away from base

Leg: a flight that takes off from a station and lands at another station

Legal Crew Rest: a rest period (measured from release to report) that is sufficient to break a crew member's duty period

Line: see Block

M

Maximum Credit Window: the maximum range of credit hours that you may be awarded for a bid period during line construction – associated with Set Condition Maximum Credit

Maximum Value: the maximum number of credit hours set by Crew Planning for a given Credit Window. The PBS Scheduler will not build your block exceeding this credit value

Minimum Credit Window: the minimum range of credit hours that you must be awarded for a bid period during line construction – associated with Set Condition Minimum Credit

Minimum Value: the minimum number of credit hours set by Crew Planning for a given Credit Window. The PBS Scheduler will go into Denial Mode in order to achieve this credit value.

N

Negative Bid Preference: a bid preference that identifies what you seek to avoid in a pairing; can be removed by Denial Mode. Ex: Avoid Pairings, Prefer Off

Normal Credit Window: the normal range of credit hours that you may be awarded for a bid period during line construction – this is the default credit window in the absence of a Set Condition Minimum/Maximum Credit bid

O

Off Duty Time: the time that a pairing ends and the crew member is no longer on duty

On Duty Time: the time that a pairing starts and the crew member must report for duty

Open Time: pairings within the bid period that remain unassigned after a scheduling run

Option: a modifier added to a command to make a bid preference more precise see also Bid Preference

Overlap: pairings that start in one bid period and end in the following bid period that may affect maximum duty or flight times for specific dates/times; overlap may be called carry-in, carry-out, spillover, and transition

P

Pairing: a series of flights over one or more days that originates and terminates in a crew base, and contains legal rest and flight duties; pairings may be called trips or rotations

Pairing Check In Time: the time that a pairing starts and the crew member must report for duty

Pairing Check Out Time: the time that a pairing ends and the crew member is no longer on duty

Pairing Length: number of calendar days that a pairing operates on

Pairing Pool: all of the available pairings from which blocks can be constructed

Pairing Substitution: the process of replacing pairings awarded by a previous preference with equivalent pairings that also allow subsequent bid preferences to be met. For example, if your first bid preference is for layovers in SEA, and your second bid preference is for Pairing L2154, the PBS Scheduler might have initially added a pairing with a SEA layover to your schedule that conflicts with Pairing L2154. Using pairing substitution, the PBS Scheduler would look for a different pairing with a SEA layover that would also allow you to have Pairing L2154 in your block

PBS Bidder: a bid entry system developed by Navtech that allows you to create and submit your bids, as well as view essential information that supports the bidding process

PBS Scheduler: a preferential bidding and scheduling system that takes your bids and seniority into consideration when building customized blocks

Position: the actual position that you operate on a pairing

Positive Bid Preference: a bid preference that identifies your desired pairings; positive preferences are the only preferences that actually place pairings in a block. Ex: Award Pairings

Pre assigned Absences: see Absences

Prefer Off Bid Preferences: a bid preference that identifies preferences for dates or days off; if the PBS Scheduler needs to enter Denial Mode to award you a complete block, Time Off date ranges are individually denied from the least important to the most important date (i.e. right to left)For example, if you entered the date range 15 to 11, the PBS Scheduler begins by denying the 11th, and then the 12th, and then the 13th, and so on until a legal block is constructed. See also Award, Avoid, Instruction bid preferences

Preferential Bidding: a system that builds individualized crew block based on bids that crew members submit identifying their likes and dislikes for flying, specific pairings, characteristics, and days off

Previous Bids: the bids that the PBS Scheduler used to construct your block for previous bid periods; you can see both your previous regular bids, if you submitted them, as well as your previous default bids

Previous Default Bid: the generic bid used to construct your block for the previous month if you did not submit a regular bid

Previous Regular Bid: the bid you submitted for a previous bid period

R

Reasons Report: explains the results of each bid preference in your bid, and also provides a reason explaining why it was or was not honored

Report (On Duty Time): the later of the actual or scheduled time that a crew member begins duty

Rules: the FAR and Scheduling Guidelines and letters of agreement used by the PBS Scheduler to evaluate the legality of each block

S

Schedule: the pairings and other activities that you are assigned to work in the bid period; schedules may be called lines, blocks, lines of time, or rosters

Secondary Line Generation (SLG): in Denial Mode, a final completion attempt that uses only the Award Pairings bid preference; SLG ignores all preferences and performs an exhaustive search to find the crew member a complete block

Set Condition Bid Preferences: a bid preference that requests a schedule containing specific criteria which will apply to the entire block. Ex: Set Condition Maximum Credit See also Award, Avoid, Instruction, Prefer Off bid preferences

Shadow Bidder: A bidder that has partial or entire bid period dates blocked for pairing assignments. The shadow bidder is assigned pairings according to their seniority but will not work the pairings. A shadow pairing can't be honored to more than one shadow bidder.

Shuffle: the process of searching for different combinations of pairings that match the same or lower bid preferences in an effort to complete blocks by removing pairings awarded by a bid preference that may be preventing the completion of the block see also Swap, Pairing Substitution

Sit Length: time spent waiting for next leg to start (not a legal crew rest period)

SLG: see Secondary Line Generation

Stack: the number of pairings operating on the same date or dates that remain unassigned due to crew members' bids; stacks may result from spikes in the flight schedule during a given period or an abnormally high number of requests for the same day off, such as Thanksgiving or Christmas Day

Standby Bid: see Default Bid

Standing Bid: see Default Bid

Swap: the process of finding combinations of pairings that can be moved (between various blocks and unassigned pairings) to meet individual bidders' preferences; since many pairings can fulfill a single bid preference, the PBS Scheduler uses swapping to identify pairings on blocks that can be exchanged with pairings on other blocks or unassigned pairings to fulfill the preferences of all bidders. See also Shuffle, Substitution

Swap Chain: a list of pairings to be exchanged, along with information about their current and new positions on blocks or in the open pairings pool; swap chains can be created for pairings being shifted among blocks, or being substituted on a single block

System-Generated Bid Groups: bid groups that are automatically added to your bid; you cannot add bid preferences to these bid groups and they cannot be edited. moved or deleted

System-Generated Bid Preferences: bid preferences automatically added to end of pairings bid groups; this preference cannot be moved, edited or deleted. See Award Pairings Bid Preference

T

Threshold Value: the target number of credit hours set by Crew Planning for a given Credit Window. The PBS Scheduler will attempt to build the block to Threshold in the first completion attempt, but will not enter Denial Mode to achieve this credit value

V

Vacation Credit: the amount of time awarded to your bid period that the PBS Scheduler must consider when constructing your schedule For example, seven days of vacation result in thirty five hours (35:00) of credit time awarded to a crew member's schedule

W

Window (Credit): the range of credit hours that each schedule's total credit value must be within to satisfy work coverage settings, collective agreements, and individual credit targets

Work Period: a group of "on duty" days that are not broken by any days off; i.e. a six-day work period could consist of six one-day pairings, or two three-day pairings, or any other legal combination

Index