

# Conditional Climatology - Fayetteville Regional Airport (FAY)

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# Fayetteville Regional Airport Conditional Climatology

The climatology graphs presented show the percentage of time that visibility and ceiling for varying flight categories occur at FAY.

The flight categories are defined as:

MVFR GTE 1,000 to LTE 3,000ft and/or GTE 3 to LTE 5SM

IFR GTE 500 to LT 1,000ft and/or GTE 1 to LT 3SM

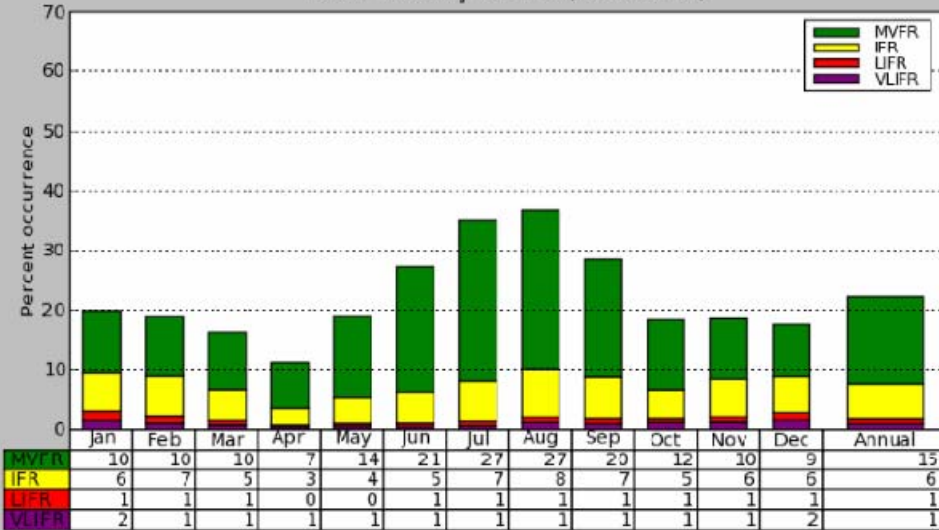
LIFR GTE 200 to LT 500ft and/or GTE 1/2 to LT 1SM

VLIFR LT 200ft and/or LT 1/2SM

The period of record for this review at FAY is 1973-2007.

# FAY Annual Conditional Climatology

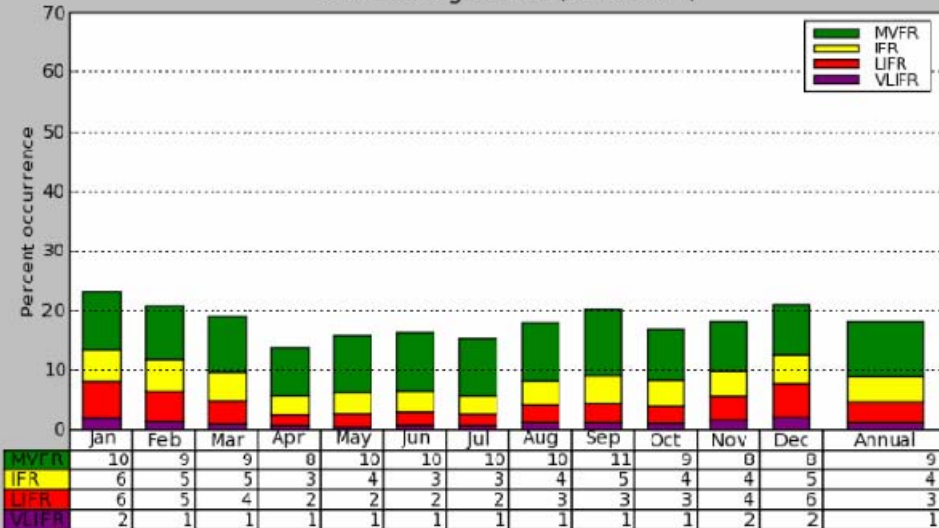
KFAY Visibility 00-23Z (1973-2007)



Annual percent of occurrence of IFR or worse visibilities is 8%

Highest probability of IFR or worse visibility is in Dec/Jan/Feb (9%) with the least chance occurring in April (4%).

KFAY Ceiling 00-23Z (1973-2007)

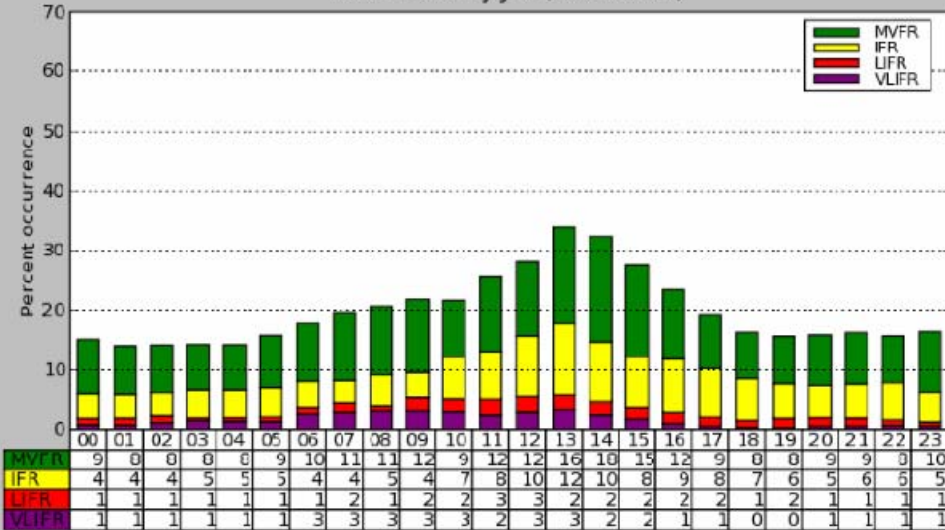


Annual percent of occurrence of IFR or worse ceilings is 8%.

The chances of IFR or worse ceilings are highest January (14%) with the Nov-Mar period carrying a 10% or higher occurrence rate. The percent of occurrence is lowest in Apr-Jul.

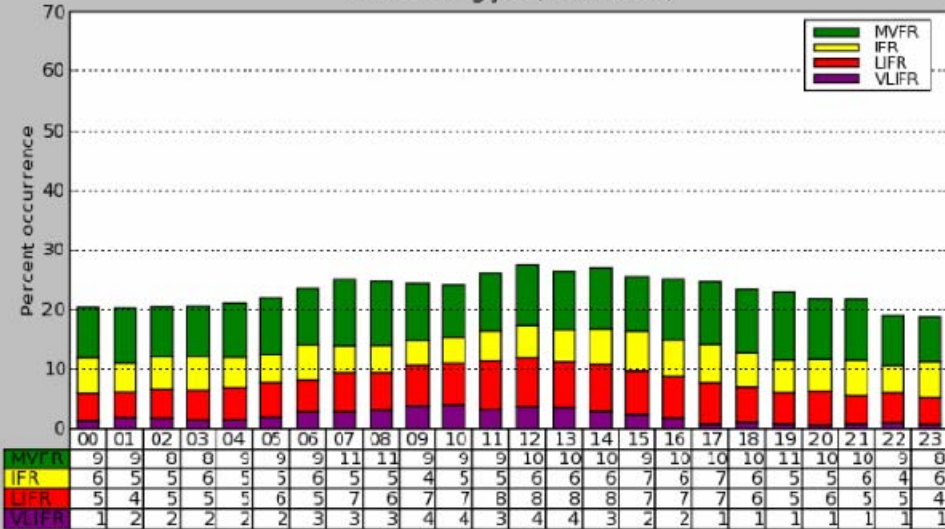
# FAY January Conditional Climatology

KFAY Visibility Jan (1973-2007)



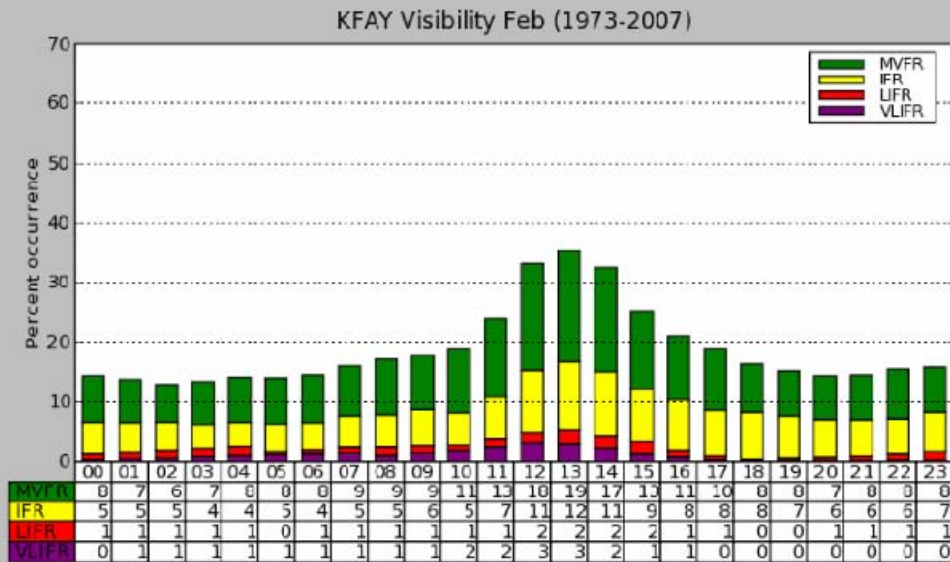
IFR or worse visibilities occur at least 10% of the time from 10z-17z, with a 15% or higher frequency found from 12-13z.

KFAY Ceiling Jan (1973-2007)

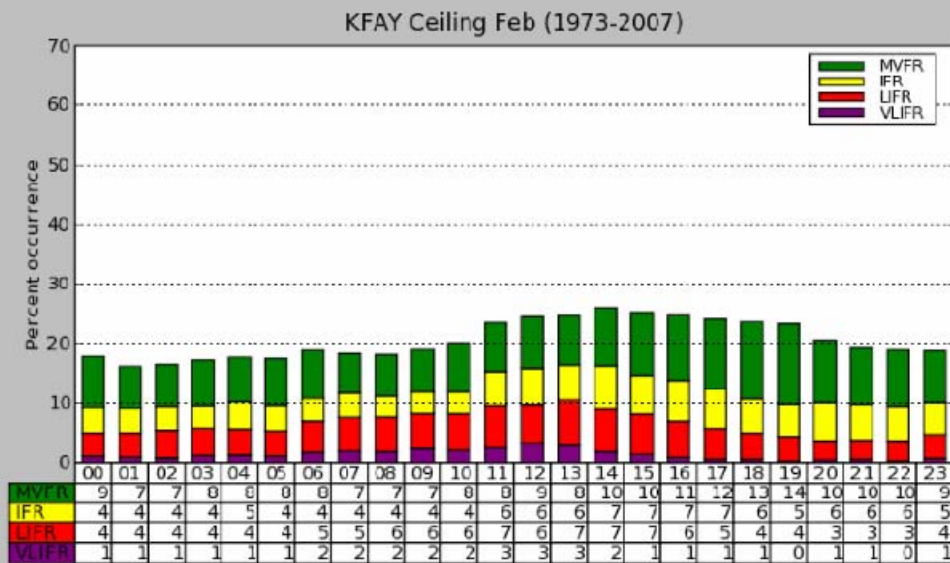


All hours of the day in January hold a 10% or higher occurrence of IFR conditions. Ceilings below 500 ft occur over 10% of the time between 06-19z and again from 09-14z.

# FAY February Conditional Climatology



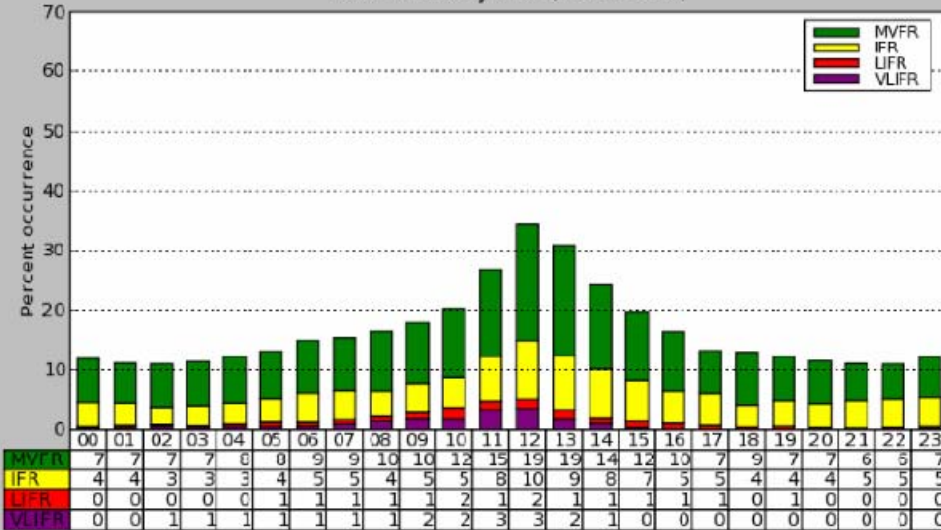
There is a 10% or greater occurrence of IFR or worse visibilities between 11z and 16z. IFR conditions peak at 13z (17%).



Most hours of February have a 10% occurrence rate of IFR conditions, with a 15% or greater occurrence rate between 11-16z.

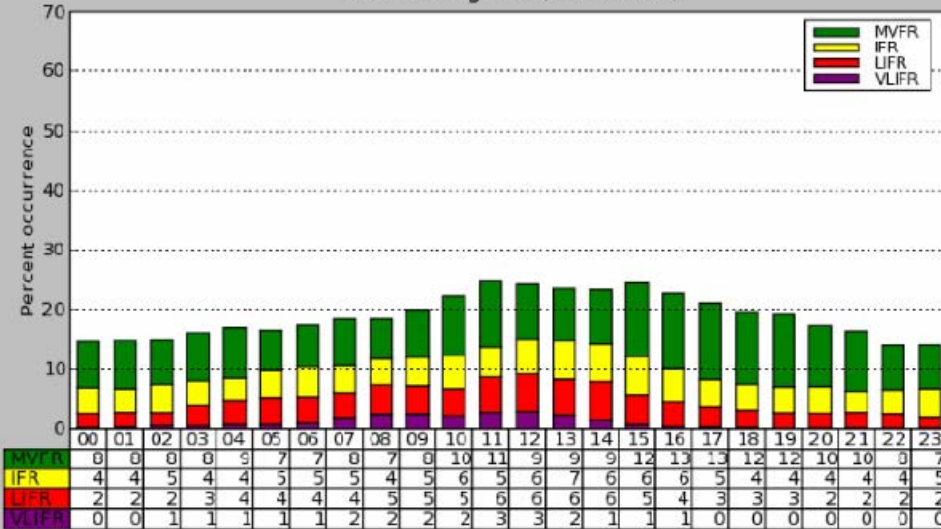
# FAY March Conditional Climatology

KFAY Visibility Mar (1973-2007)



The hours of 11z to 14z display a 10% or greater occurrence of IFR visibility.

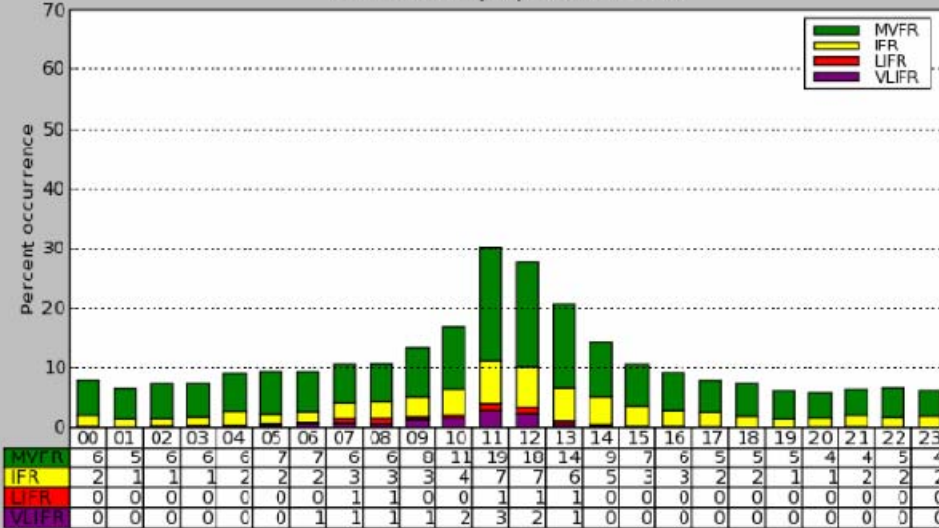
KFAY Ceiling Mar (1973-2007)



A decline in IFR ceilings can be seen during the late afternoon and early evening hours compared to January and February. 05-16z still carry a 10% or higher IFR frequency.

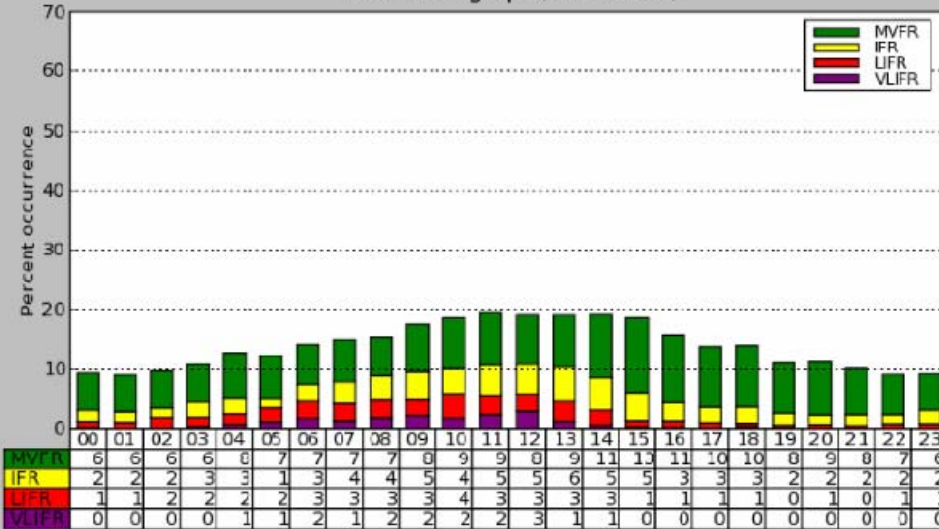
# FAY April Conditional Climatology

KFAY Visibility Apr (1973-2007)



Only the hours of 11z and 12z have a 10% IFR occurrence. While 15z-06z has a 3% or less occurrence rate.

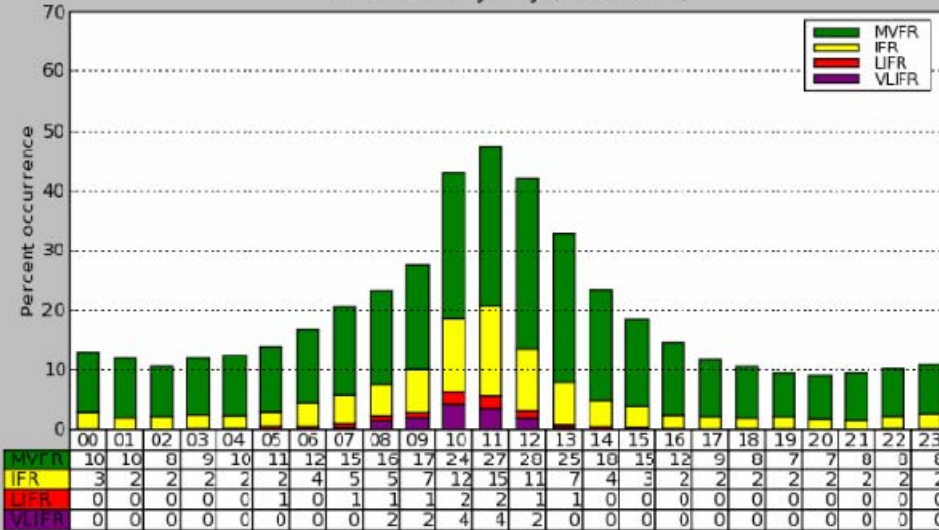
KFAY Ceiling Apr (1973-2007)



April sees the IFR ceiling occurrence trend to more of a diurnal nature, with the highest rates found after midnight till sunrise. The peak of IFR ceilings is seen from 10-13z, but only tops out at 10%.

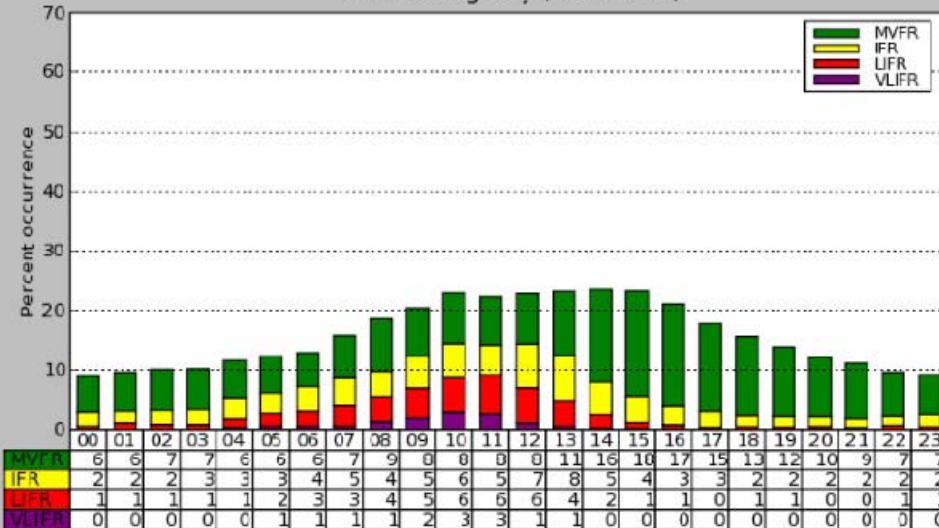
# FAY May Conditional Climatology

KFAY Visibility May (1973-2007)



Only the hours of 10-12z have a 10% or greater occurrence of IFR fog. Rates top out at 20% at 11z.

KFAY Ceiling May (1973-2007)

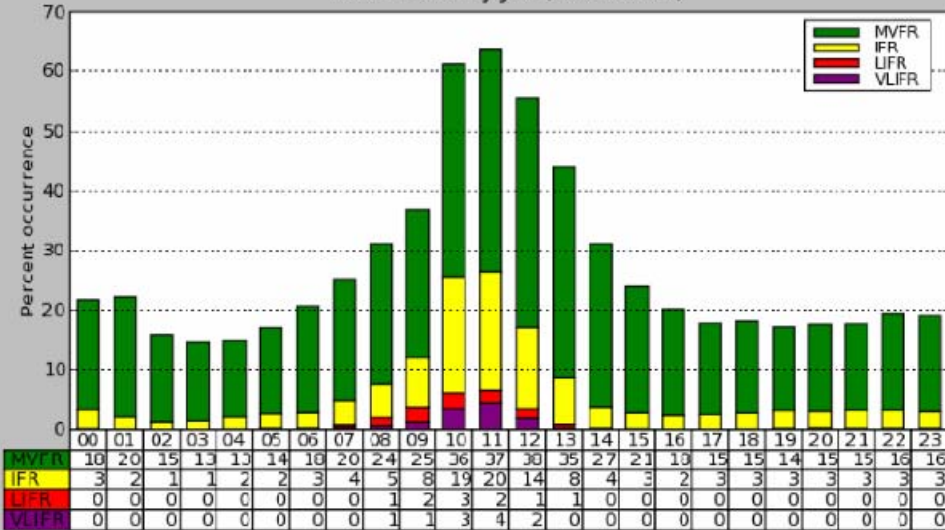


A near 15% occurrence of IFR or worse ceilings can be seen from 10-12z.



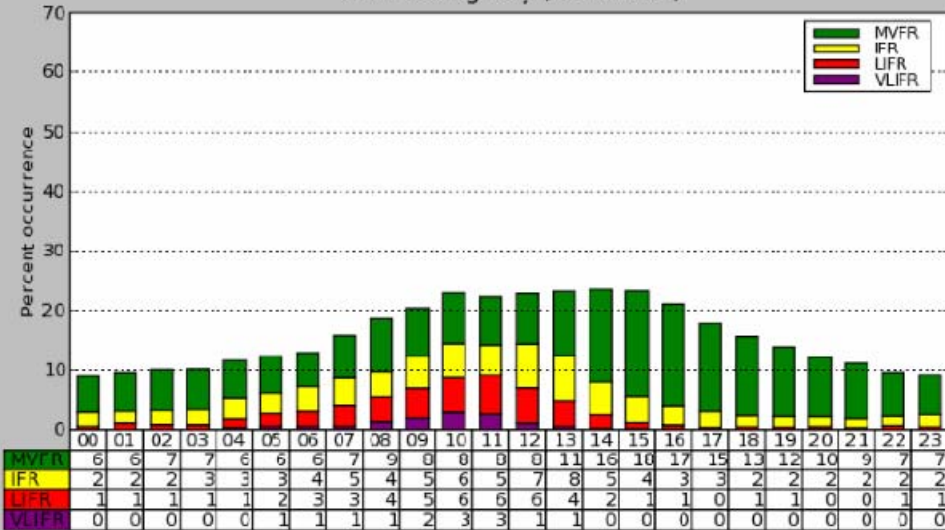
# FAY June Conditional Climatology

KFAY Visibility Jun (1973-2007)



The hours of 10z and 11z have a 25% frequency of IFR fog. MVFR visibilities occur over 60% of the time at 10z and 11z.

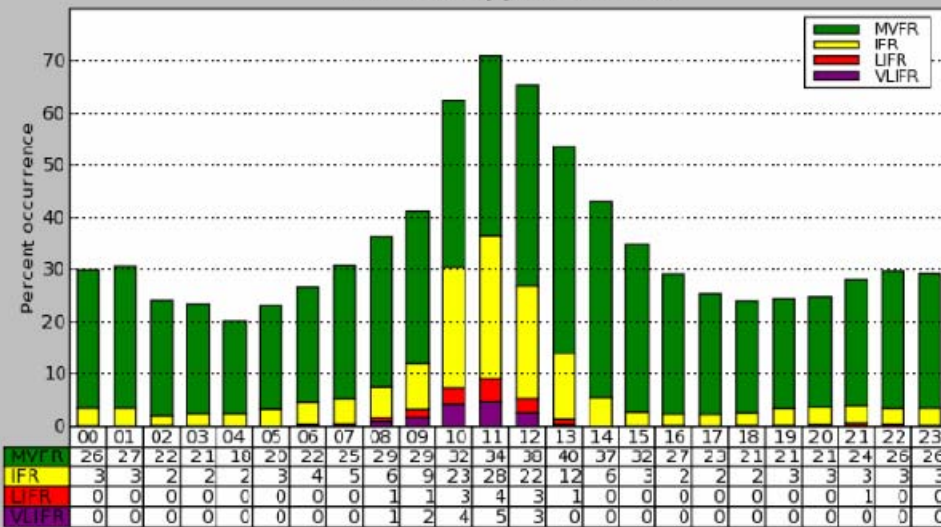
KFAY Ceiling May (1973-2007)



The peak in IFR ceilings occur during the hours of 09z-13z during the month of June, with only very small percentages noted during the afternoon and evening hours.

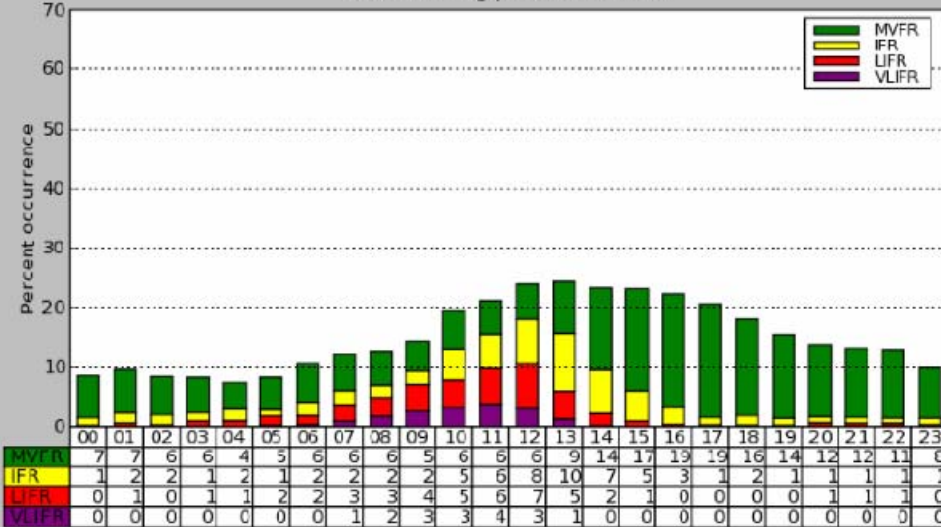
# FAY July Conditional Climatology

KFAY Visibility Jul (1973-2007)



IFR fog rates climb to 30% at 10z and exceed 35% at 11z. MVFR or worse conditions occur over 70% of the time at 11z.

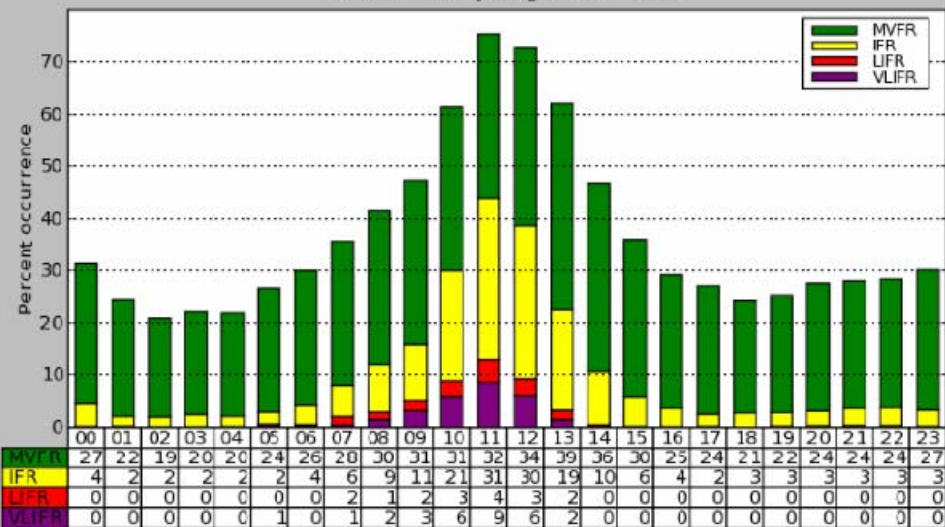
KFAY Ceiling Jul (1973-2007)



IFR ceilings favor the predawn and sunrise hours, with the peak (18%) occurring at 12z. Very few instances of IFR ceilings are noted from mid morning through the late evening.

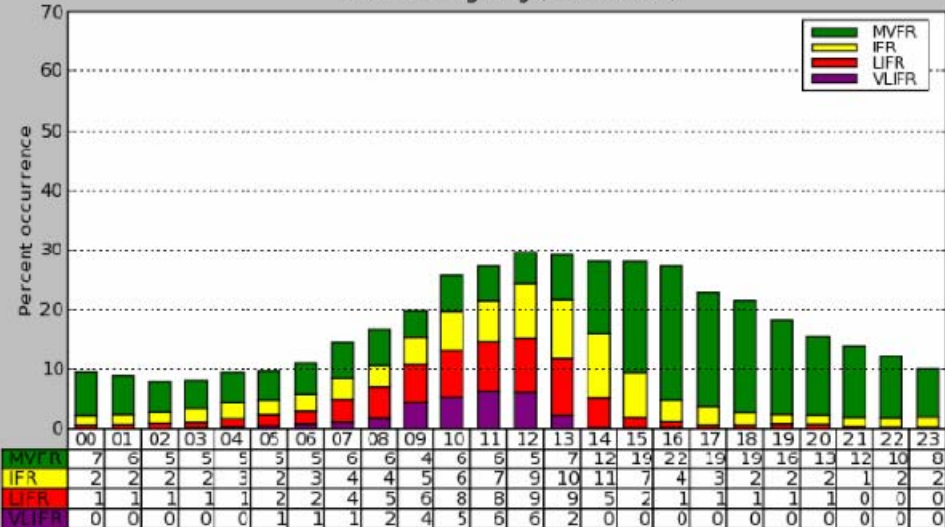
# FAY August Conditional Climatology

KFAY Visibility Aug (1973-2007)



August contains some of the highest hourly percentages of IFR fog. 10z-12z has a 30% or greater occurrence rate of IFR fog with 11z above 40%. MVFR fog exceeds 70% at 11z and 12z.

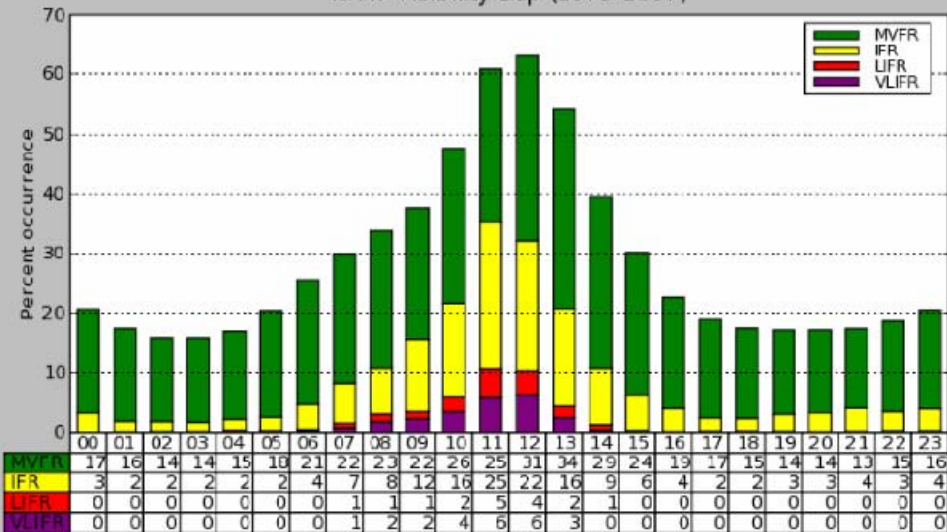
KFAY Ceiling Aug (1973-2007)



IFR occurrences reach 20% between 11z-13z, with over a 10% chance of ceilings lowering to less than 500 ft from 09z to 13z.

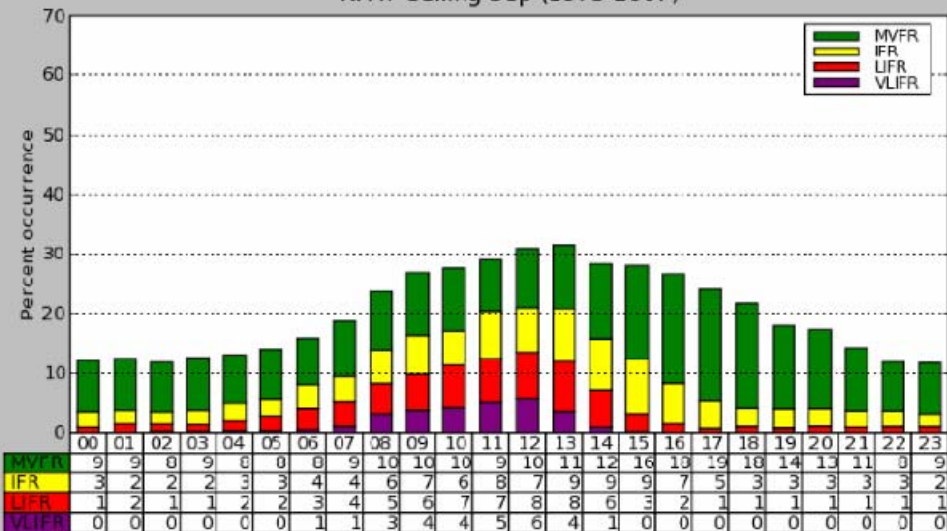
# FAY September Conditional Climatology

KFAY Visibility Sep (1973-2007)



IFR fog still occurs over 30% of the time between 11z-12z. MVFR conditions decline from rates seen in August, but still occur over 60% of the time at 11z and 12z.

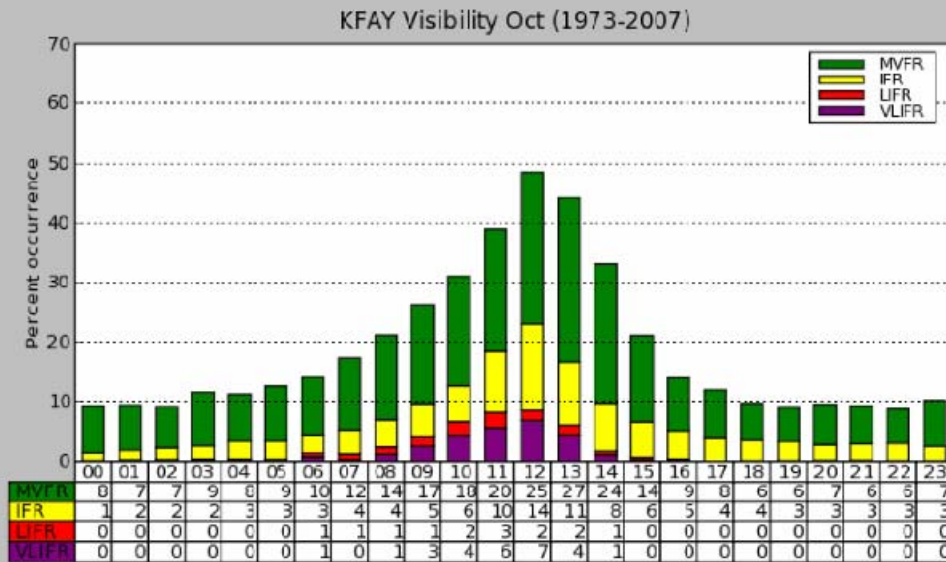
KFAY Ceiling Sep (1973-2007)



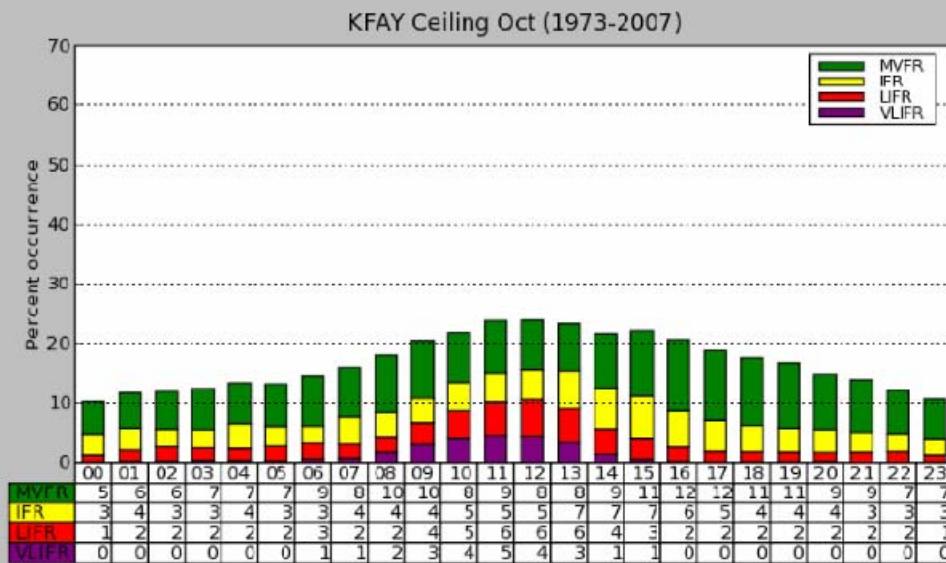
Just like in August, September IFR occurrences reach or exceed 20% between 11z-13z, with over a 10% chance of ceilings lowering to less than 500 ft from 09z-13z.

The low occurrence rate during the daylight and evening hours continues to be noted.

# FAY October Conditional Climatology



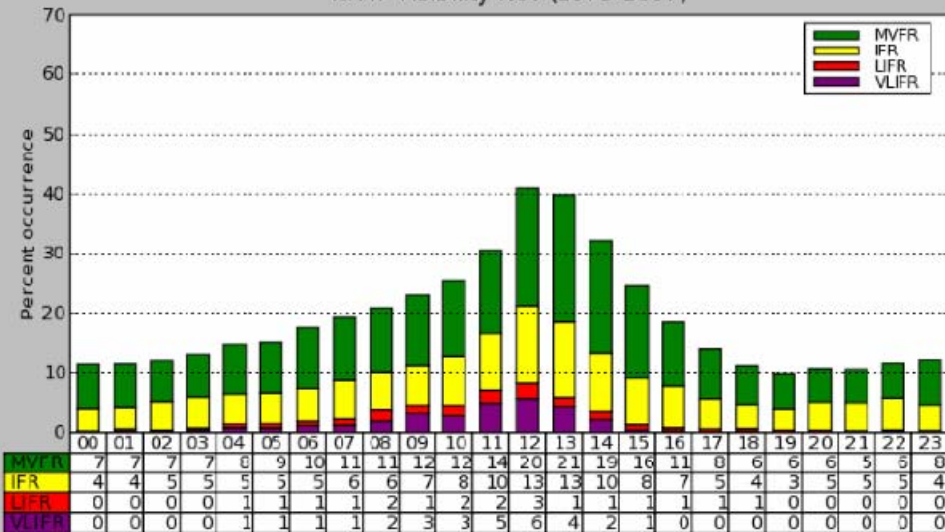
The frequency of IFR fog declines compared to July-September. IFR fog is still diurnal, with 12z still seeing over a 20% occurrence rate.



As in the summer, IFR ceilings are still favored from around 09z-15z.

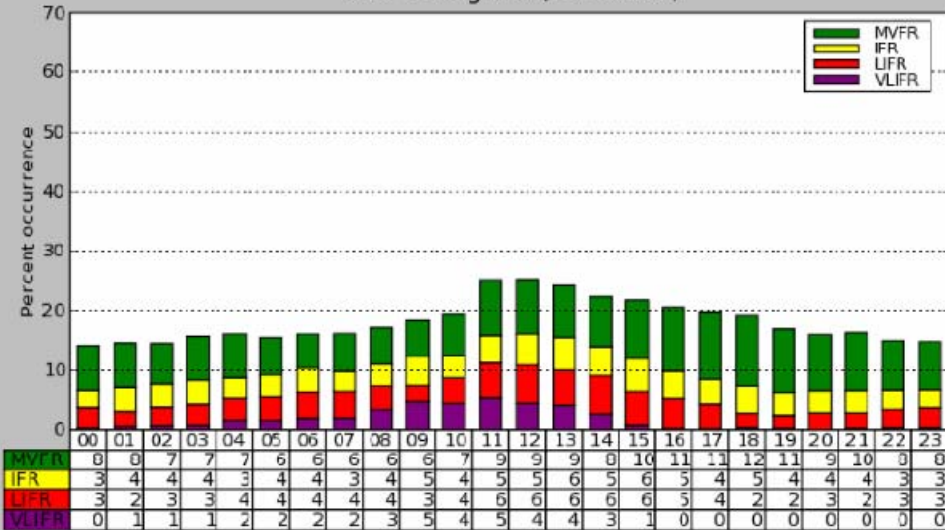
# FAY November Conditional Climatology

KFAY Visibility Nov (1973-2007)



10% or greater IFR fog occurrences can be found in the 08z-15z time frame in November. 12z still sees rates over 20%.

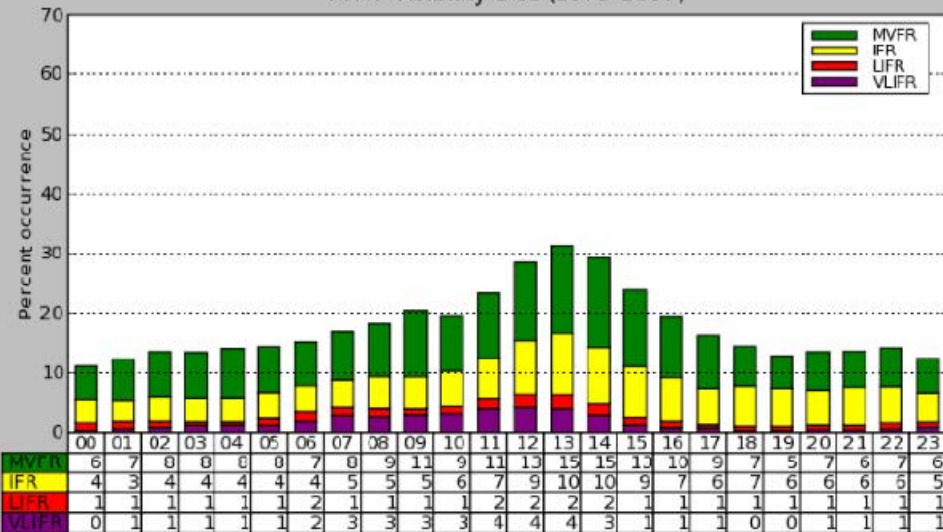
KFAY Ceiling Nov (1973-2007)



IFR ceiling frequencies reach or exceed 10% from 05z-16z, with the peak from 11z-13z.

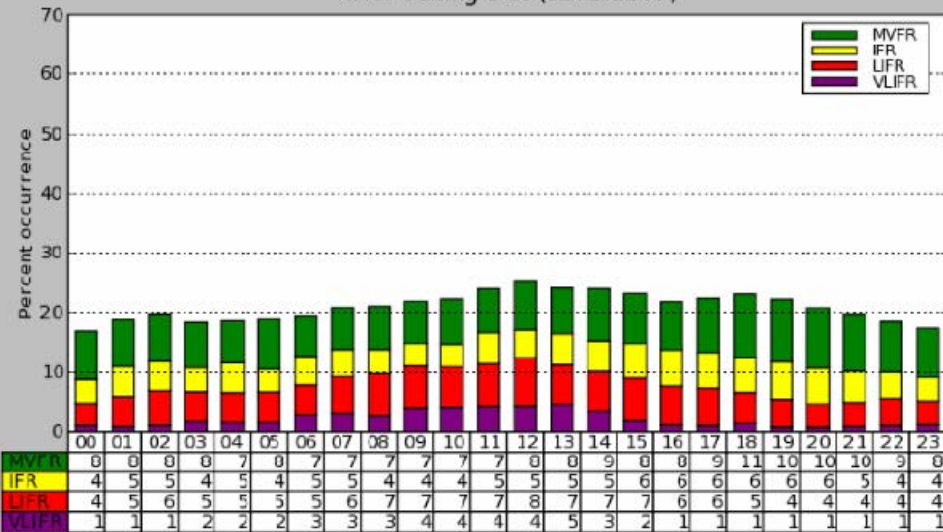
# FAY December Conditional Climatology

KFAY Visibility Dec (1973-2007)



A discernable peak in IFR occurrence is not as apparent during the month of December, with the highest values still found in the 12-14z time range.

KFAY Ceiling Dec (1973-2007)



With the onset of winter, IFR occurrences approach or exceed 10% most hours of the day during December.

# Key Findings

- Of all 5 central NC TAF sites, FAY has the lowest annual occurrence of IFR ceilings.
- IFR ceilings occur the most in the cold air damming months, with a minimum occurring in the spring and summer.
- There is a very strong signal for both MVFR and IFR fog in the early morning hours (10-13z) during July, August, and September.