# PTS Interpretation of Required Weather Knowledge for ERAU Flight Courses

Note: This document was created to provide ERAU flight instructors and students with guidance as to what level of weather product knowledge is required for each flight course and segment, as interpreted by the FAA and ERAU Practical Test Standards. The requirements listed in this document are intended to reflect the MINIMUM level of knowledge a student should possess. Students will be expected to present the applicable weather products during the practical test.

## FA 132

REFERENCES: 14 CFR Part 91; AC 00-6, AC 00-45, AC 61-23C/FAA-H-8083-25, AC 61-84; AIM; AMG; ERAU PTS for FA132T.

### METAR:

The student should possess the following:

- **Ability to interpret all information prior to RMK section.**

### TAF:

The student should possess the following:

- **Ability to read and interpret all information with emphasis placed on applying this information to the time of flight.**

### UA (Pilot Report):

The student should possess the following:

- **Ability to determine reporting location, time, altitude, and location of the referenced weather conditions.**

### ATIS:

The student should possess the following:

- **Ability to obtain and interpret with respect to the planned flight.**

## FA 133

REFERENCES: 14 CFR Part 91; AC 00-6, AC 00-45, AC 61-23/FAA-H-8083-25, AC 61-84; AIM; FAA-S-8081-14AS; FAA-S-8081-14AM

NOTE: Emphasis should be placed on interpreting these weather products with respect to VFR flight (e.g. avoiding flight into instrument conditions, VFR weather minimums, etc.)

### METAR:

The student should possess the following:

- **Ability to interpret all information prior to RMK section.**

### TAF:

The student should possess the following:

- **Ability to read and interpret all information with emphasis placed on applying this information to the time of flight.**

### UA (Pilot Report):

The student should possess the following:

- **Ability to determine reporting location, time, altitude, and location of the referenced weather conditions.**

### ATIS / AWOS / ASOS:

The student should possess the following:

- **Ability to obtain and interpret with respect to the planned flight.**
- **Knowledge of the differences between ATIS and AWOS / ASOS and have the ability to apply this information to traffic pattern and other airport operations.**

### FA (Area Forecast):

The student should possess the following:

- **Ability to determine and apply the valid times of all sections of the FA to the planned flight.**

- **Ability to, using the synopsis, determine location and meteorological significance of pressure systems and fronts.**

## FA (Area Forecast) continued:

- **Ability to, using the VFR clouds and weather section, determine the altitude of clouds and the position of other significant weather such as lowered visibility or precipitation along the proposed route and time of flight.**

- **Understanding of the VFR, MVFR, and IFR Outlook categories and proper application of outlook times to the proposed flight.**

## FD (Winds Aloft):

The student should possess the following:

- **Ability to properly apply to the proposed flight, the winds and temperatures aloft according to the printed "for use" valid period.**

## WA / WS / WST (Airmet / Sigmet / Convective Sigmet):

The student should possess the following:

- **Understanding of what weather phenomena are associated with each type of WA / WS / WST.**

- **Ability to plot the affected region(s).**

- **Ability to properly apply the valid time of the WA / WS / WST to the proposed time of flight.**

## Surface Analysis:

The student should possess the following:

- **Ability to read and apply the issue time to the proposed flight.**

- **Knowledge of all sky coverage symbols, and the common weather and precipitation symbols.**

- **Ability to read and understand the wind barbs.**

- **Ability to identify and understand the associated weather and significance of pressure systems and fronts.**

## Weather Depiction:

The student should possess the following:

- **Ability to read and apply the issue time to the proposed flight.**

## Weather Depiction (continued):

- **Ability to read and understand a station plotting with emphasis on sky coverage, ceilings, weather symbols and visibility.**

- **Knowledge of VFR / MVFR / IFR parameters.**

## Radar Summary:

The student should possess the following:

- **Ability to read and apply the issue time to the proposed flight.**

- **Ability to identify areas of precipitation and the characteristics of such areas with respect to intensity, type of precipitation, severe weather watch areas and cell movement.**

## Low-Level Significant WX Prognostic:

The student should possess the following:

- **Ability to obtain the appropriate forecast and correctly apply the valid period to the time of flight.**

- **Knowledge of what type of information each panel provides.**

- **Top Panels: knowledge of symbols listed in the legend.**

- **Bottom Panels: ability to identify pressure systems, fronts, and areas of precipitation.**

## Convective Outlook:

The student should possess the following:

- **Ability to read and apply the valid period to the proposed flight.**

- **Knowledge of the significance of the printed arrows and any associated text.**

## Winds Aloft Forecast (Graphic):

The student should possess the following:

- **Ability to obtain the appropriate forecast and correctly apply the valid period to the time of flight.**
- **Ability to determine the wind speed and temperature at the selected flight level.**

## FA 232

REFERENCES: 14 CFR Part 61; AC 00-6, AC 00-45; AIM; FAA-S-8081-4D.

NOTE: Emphasis should be placed on the following: interpreting weather information with respect to the avoidance of structural icing conditions; using weather forecasts to determine appropriate departure, en route, and/or arrival procedures to be used; applying weather information to applicable CFRs (i.e. alternate minimums.)

### METAR:

The student should possess the following:

- **Ability to interpret all information prior to RMK section.**

### TAF:

The student should possess the following:

- **Ability to read and interpret all information with emphasis placed on applying this information to the time of flight.**

### UA (Pilot Report):

The student should possess the following:

- **Ability to determine reporting location, time, altitude, and location of the referenced weather conditions.**

### ATIS / AWOS / ASOS:

The student should possess the following:

- **Ability to obtain and interpret with respect to the planned flight.**
- **Ability to apply this information to the appropriate departure and/or arrival procedures.**

### FA (Area Forecast):

The student should possess the following:

- **Ability to determine and apply the valid times of all sections of the FA to the planned flight.**

- **Ability to, using the synopsis, determine location and meteorological significance of pressure systems and fronts.**

## FA (Area Forecast) continued:

- **Ability to, using the VFR clouds and weather section, determine the altitude of clouds and the position of other significant weather such as lowered visibility or precipitation along the proposed route and time of flight.**

- **Understanding of the VFR, MVFR, and IFR Outlook categories and proper application of outlook times to the proposed flight.**

## FD (Winds Aloft):

The student should possess the following:

- **Ability to properly apply to the proposed flight, the winds and temperatures aloft according to the printed "for use" valid period.**

## WA / WS / WST (Airmet / Sigmet / Convective Sigmet):

The student should possess the following:

- **Understanding of what weather phenomena are associated with each type of WA / WS / WST.**

- **Ability to plot the affected region(s).**

- **Ability to properly apply the valid time of the WA / WS / WST to the proposed time of flight.**

## Surface Analysis:

The student should possess the following:

- **Ability to read and apply the issue time to the proposed flight.**

- **Knowledge of all sky coverage symbols, and the common weather and precipitation symbols.**

- **Ability to determine precipitation intensity (light, moderate, heavy) and whether or not the precipitation exists in a stable or unstable atmosphere and the significance thereof.**

- **Ability to read and understand the wind barbs.**

- **Ability to identify and understand the associated weather and significance of pressure systems and fronts.**

## Weather Depiction:

The student should possess the following:

- **Ability to read and apply the issue time to the proposed flight.**
- **Ability to read and understand a station plotting with emphasis on sky coverage, ceilings, weather symbols and visibility.**
- **Knowledge of VFR / MVFR / IFR parameters.**

## Radar Summary:

The student should possess the following:

- **Ability to read and apply the issue time to the proposed flight.**
- **Ability to identify areas of precipitation and the characteristics of such areas with respect to intensity, type of precipitation, severe weather watch areas and cell movement.**

## Stability Charts (Lifted/K index):

The student should possess the following:

- **Ability to read and apply the issue time to the proposed flight.**
- **Understanding of the lifted index as it relates to atmospheric stability, and the significance thereof.**
- **Knowledge of K index values as they relate to the likelihood of convective activity, and the significance thereof.**

## Low-Level Significant WX Prognostic:

The student should possess the following:

- **Ability to obtain the appropriate forecast and correctly apply the valid period to the time of flight.**
- **Knowledge of what type of information each panel provides.**
- **Top Panels: knowledge of symbols listed in the legend.**
- **Bottom Panels: ability to identify pressure systems, fronts, and areas of precipitation.**

## Convective Outlook:

The student should possess the following:

- **Ability to read and apply the valid period to the proposed flight.**
- **Knowledge of the significance of the printed arrows and any associated text.**

## Winds Aloft Forecast (Graphic):

The student should possess the following:

- **Ability to obtain the appropriate forecast and correctly apply the valid period to the time of flight.**
- **Ability to determine the wind speed and temperature at the selected flight level.**

## FA 325

REFERENCES: 14 CFR Part 91; AC 00-6, AC 00-45, AC 61-23/FAA-H-8083-25, AC 61-84; AIM; FAA-S-8081-12B

NOTE: Emphasis should be placed on interpreting these weather products with respect to VFR flight (e.g. avoiding flight into instrument conditions, VFR weather minimums, etc.)

### METAR:

The student should possess the following:

- **Ability to interpret all information prior to RMK section.**

### TAF:

The student should possess the following:

- **Ability to read and interpret all information with emphasis placed on applying this information to the time of flight.**

### UA (Pilot Report):

The student should possess the following:

- **Ability to determine reporting location, time, altitude, and location of the referenced weather conditions.**

### ATIS / AWOS / ASOS:

The student should possess the following:

- **Ability to obtain and interpret with respect to the planned flight.**
- **Ability to apply this information to the appropriate departure and/or arrival procedures.**

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- **Ability to plot the affected region(s).**

- **Ability to properly apply the valid time of the WA / WS / WST to the proposed time of flight.**

## Surface Analysis:

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The student should possess the following:

- **Ability to read and apply the issue time to the proposed flight.**
- **Understanding of the lifted index as it relates to atmospheric stability, and the significance thereof.**
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- **Ability to obtain the appropriate forecast and correctly apply the valid period to the time of flight.**
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The student should possess the following:

- **Ability to read and apply the valid period to the proposed flight.**
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The student should possess the following:

- **Ability to obtain the appropriate forecast and correctly apply the valid period to the time of flight.**
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