

## MEA 498/598: National Weather Service Student Internship Aviation Worksheet

Name \_\_\_\_\_  
Shift \_\_\_\_\_

Date \_\_\_\_\_  
Mentor \_\_\_\_\_

### TAF: Terminal Aerodrome Forecast:

24-hour forecast for an area within 5 nautical miles of the center of an airport runway complex. Primary purpose is to forecast changes in flight categories and other events that have a significant operational impact to the aviation community. The aviation flight categories are listed in the below chart. Other events that have a significant operational impact include: thunderstorms, non-convective low-level wind shear (LLWS), start/stop of freezing precipitation and ice pellets, moderate or greater rain, snow accumulation, sustained winds  $\geq 15$  knots, wind direction changes  $\geq 30$  degrees with speeds  $\geq 12$  knots, or a sustained wind speed/gust spread  $\geq 10$  knots.

| Category  | Ceiling                     |        | Visibility                  |
|---|-----------------------------|--------|-----------------------------|
| Visual Flight Rules<br><b>VFR</b> (green sky symbol)            | greater than 3,000 feet AGL | and    | greater than 5 miles        |
| Marginal Visual Flight Rules<br><b>MVFR</b> (blue sky symbol)   | 1,000 to 3,000 feet AGL     | and/or | 3 to 5 miles                |
| Instrument Flight Rules<br><b>IFR</b> (red sky symbol)          | 500 to below 1,000 feet AGL | and/or | 1 mile to less than 3 miles |
| Low Instrument Flight Rules<br><b>LIFR</b> (magenta sky symbol) | below 500 feet AGL          | and/or | less than 1 mile            |

- 1) Have your mentor:
  - Show you the most recent set of TAFs
  - Explain the TAF format

In the below space, explain the difference between FM and TEMPO groups.

- 2) Answer the following questions in the space provided below:  
How many TAFs (not counting amendments) are issued each day?  
What is the definition of low level wind shear (LLWS)?

- 3) We will soon be creating our aviation forecasts digitally through GFE. This will allow the development of gridded aviation products, ensure consistency between the public and aviation forecasts, and allow the forecaster to dump out a legacy text product. **Have your mentor demonstrate the process to create gridded aviation forecasts.**