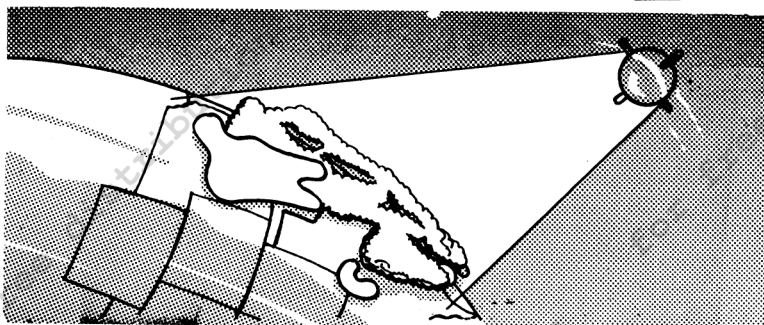


DEPARTMENT OF TRANSPORTATION
Federal Aviation Administration
IFR PILOT EXAM-O-GRAM* NO. 15

THE WEATHER DEPICTION CHART IS FOR YOU



"Pictorial" weather charts are used to aid the IFR pilot in visualizing the overall weather situation; consequently, applicants need to be familiar with them. These graphic displays, available at Weather Service Offices, and most Flight Service Stations, are designed for rapid visual communication of weather conditions. Most important of these pictorial charts for weather briefing purposes are: WEATHER DEPICTION, SURFACE PROGNOSTIC, and RADAR SUMMARY. The WEATHER DEPICTION chart is discussed in this Exam-O-Gram; the other two charts are reviewed in Exam-O-Grams 16 and 17.

The "pilot oriented" picture of weather conditions on the WEATHER DEPICTION chart is made with you in mind. The chart provides at a glance basic information on areas and amount of cloud cover, heights of cloud bases, visibility and obstruction to vision. In addition, the chart shows major fronts and high and low pressure centers from the surface analysis for the preceding hour. This chart is a choice place to begin your weather briefing and flight planning. From it, you can determine general weather conditions more readily than from any other source. It gives you a "bird's eye" view at map time of areas of favorable and adverse weather and pictures frontal and pressure systems associated with the weather.

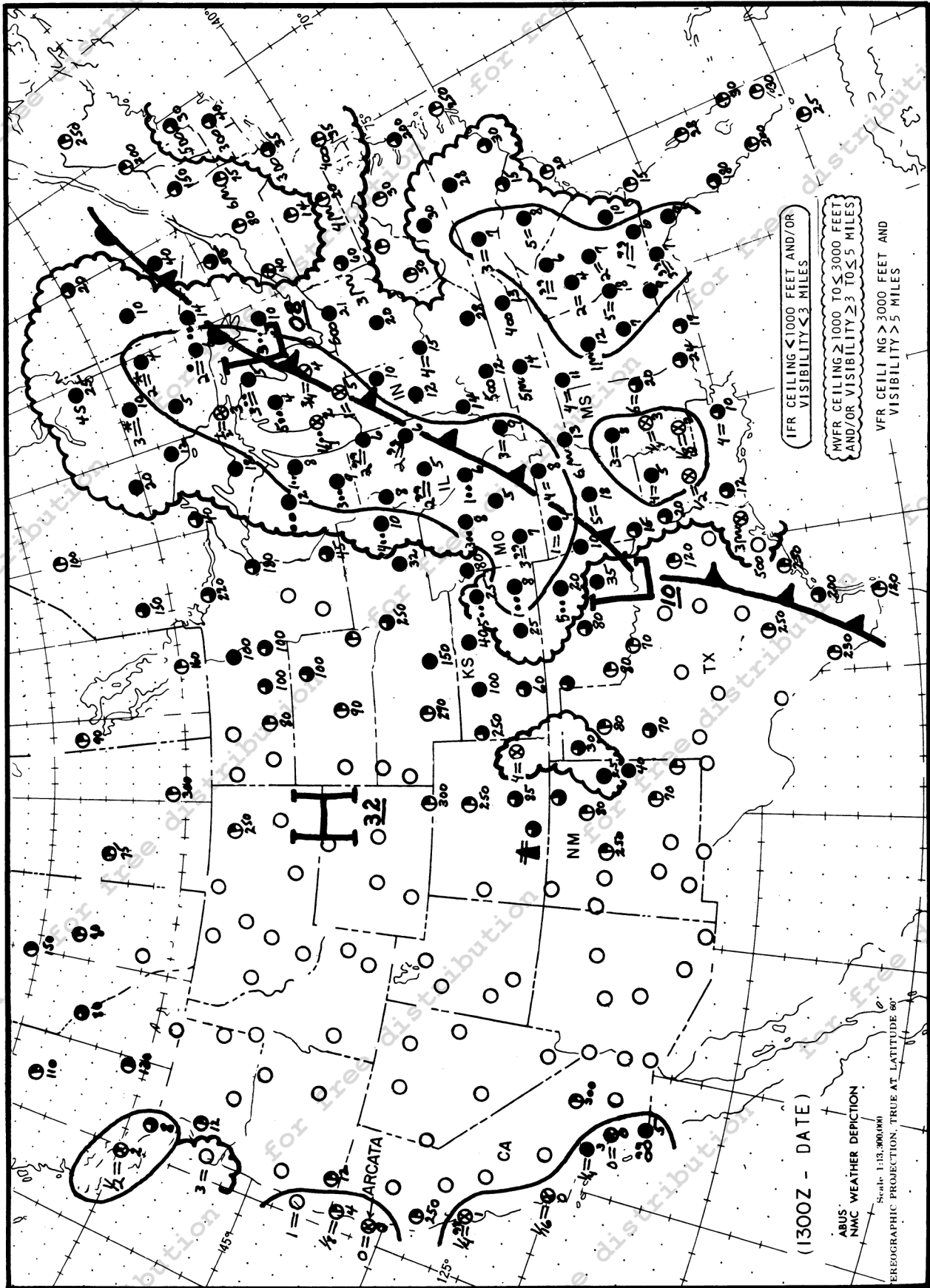
The chart may not completely represent enroute conditions due to (1) variations in terrain and weather between stations; and (2) weather changes that may have taken place after the data has been plotted. After you evaluate the general picture, your final flight planning must consider forecasts, progs, and the latest pilot, radar, and surface weather reports.

A typical Weather Depiction Chart appears on the next page. By learning the few symbols shown below, you can easily read every meteorological feature on the chart. Study the symbols for a few minutes--then test yourself on the Quiz that follows.

<u>TOTAL SKY COVER</u>		<u>WEATHER AND OBSTRUCTIONS TO VISION</u>	
○ Clear	⊖ Overcast, with breaks	Δ - <i>Hail</i>	⊖ - <i>Freezing Rain</i>
⊖ Scattered	● Overcast	⚡ - <i>Thunderstorm</i>	⊖ - <i>Freezing Drizzle</i>
⊖ Broken, or thin broken	⊗ Obscured	•• - <i>Rain</i>	⊖ - <i>Rain Shower</i>
		* - <i>Snow</i>	⊖ - <i>Snow Shower</i>
		• - <i>Drizzle</i>	Δ - <i>Ice Pellets</i>
		∞ - <i>Haze</i>	⊖ - <i>Blowing Dust</i>
		= - <i>Fog</i>	⊖ - <i>Blowing Sand</i>
		☼ - <i>Smoke</i>	⊖ - <i>Blowing Snow</i>
<u>OTHER</u>			
⊖ Clouds Topping Ridges			

Figures below the sky cover symbols are cloud heights in hundreds of feet--either the ceiling; or, if there is no ceiling, the height of the lowest scattered. Numbers and letters left of the symbols, represent visibility and weather or obstructions to vision. A height below a broken, overcast, or obscured sky cover always indicates a ceiling. Absence of a height below one of these symbols indicates thin sky cover or partial obscuration. Absence of visibility indicates the visibility is more than 6 miles.

* Exam-O-Grams are non-directive in nature and are issued solely as an information service to individuals interested in Airman Written Examinations.



Vital Statistics:

WEATHER DEPICTION charts are issued eight times daily, at approximately 3-hour intervals. Each chart is marked with the hour of collection (GMT) of the weather data from which the chart was made. It is important to remember that the chart may not depict the present situation; each chart is approximately 1 1/3-hours old when it is distributed and will be approximately 4 1/3-hours old before it is replaced.

Tips on Using Weather Depiction Charts:

Remember that they are only one of many useful tools for weather briefing. The Weather Depiction Chart is simply a good place to start--a good place to get a picture of general weather conditions. By comparing this chart with the Surface Prognostic (a prediction of the weather situation at a specified time), by reviewing terminal and area forecasts, by studying the latest Aviation Weather reports for appropriate locations, and by checking available PIREPS, AIRMETS, SIGMETS, and RADAR information, you can reach a safe, sensible, and suitable decision for your flight.

QUIZ: (Answers on page 4.)

1. What are the sky conditions in New Mexico?
2. What ceiling and visibility categories exist in Kansas, progressing from the northwest to the southeast?
3. What is the ceiling and visibility in the southwest corner of Mississippi?
4. Describe the weather conditions at Arcata, California.
5. What can you determine from the chart regarding the visibility and height of the clouds just behind the front in the southeast corner of Texas?
6. What can be determined from the Sky Cover symbol of the station in northeast New Mexico?
7. Describe briefly the weather conditions associated with the front in Missouri and Indiana.
8. What kind of front or fronts are shown on the chart?
9. At approximately what time (CST) would this chart be available?
10. At 0900 CST, approximately how old is the data shown on this chart?
11. At what time (CST) will the next Weather Depiction Chart be available?

ANSWERS TO QUIZ:

1. Clear in the west and southwest, scattered clouds in the central and south-east, and overcast in the east central.
2. VFR, MVFR, and IFR.
3. Ceiling 200 feet; visibility 1/8 mile.
4. Sky obscured, fog, ceiling and visibility zero.
5. The visibility is more than 6 miles and the scattered clouds are at a height of 23,000 feet.
6. The clouds are thin broken.
7. IFR conditions exist.
8. A cold front in eastern Texas, a cold front from southeast Oklahoma to the center of the Low at Lake Huron, and a stationary front northeast from the Low.
9. 1300Z Chart available at approximately 1420Z or 0820 CST.
10. 1300Z is 0700 CST. The data is 2 hours old at 0900 CST.
11. Approximately 1120 CST (1600Z chart, available 1720Z).

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11/65

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