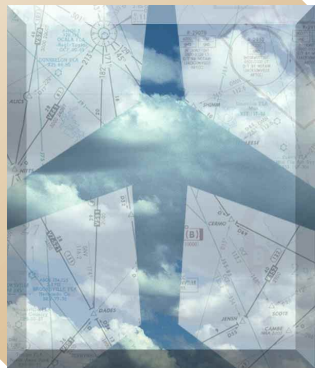
JEPP'S BRIEFING



The Chart Clinic – Second in a Series

By James E. Terpstra

This series of articles is designed for instrument pilots who want to get the maximum value from their Jeppesen charts. In last month's article, we covered those seemingly "millions" of chart symbols. This month we'll take a tour of enroute charts.

The portion of the Jeppesen Enroute Chart most often overlooked is the front panel. It contains some helpful information, plus other data that can be critical to flight.

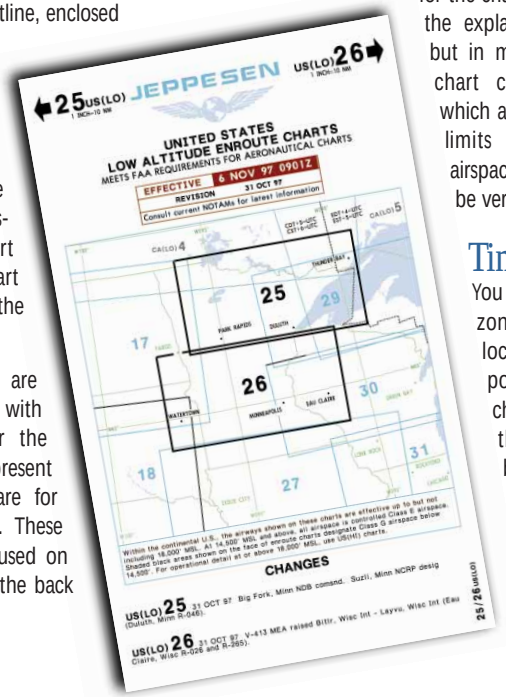
At the top of each chart are two numbers that show the title. Each number has an arrow directing the pilot to turn to the desired geographical area. Immediately below each chart number is the scale of the charts.

As mentioned previously, most nations have agreed to the ICAO 28-day cycle (or every other 28-day cycle for the US and Canada). As shown below in the illustrated enroute chart panel, the effective date of this chart is 6 November 1997. This date represents "day 1" of the cycle. More specifically, the chart is effective at 0901 Zulu.

Within the Neatline

The enroute chart outline, enclosed within the solid line, includes a wealth of information when examined closely. Note the solid lines in the middle of the illustrated enroute chart show that the chart "in your hand" is the US(LO)25 and 26.

A number of cities are included on the chart with a dot located near the city. These dots represent city locations and are for orientation purposes. These also are the names used on the index panels on the back side of the chart.



On most enroute charts, there are one or more shaded areas on the front panel that represent areas covered by area charts. With the redraw of the low altitude enroute charts in 1997 using better scales, many of the area charts are no longer needed. The location of each area chart is identified by the name of the area chart plus the small city dot.

One of the most useful pieces of information on each of the charts is the information included below the front map layout under the title "**CHANGES**." Each time a change is made to an enroute chart, the chart is revised, and the change that caused the revision is listed on the front panel of the chart. As an example, in the illustration shown below, the Big Fork, Minnesota NDB was commissioned. Also the Suzli, Minn NCRP (non-compulsory reporting point) has been designated on US(LO) chart 25. To help locate the effected change, the radial from the reference facility (in this case the 046° radial from the Duluth, Minn VOR) is included.

Chart Validity

Pilots trained in the United States know that low altitude airways are good up to, but not including 18,000 feet. They also know that all airspace at 14,500 feet and above is controlled – but what if you are going to fly in South America, in Africa, over Australia? Well, you get the idea.

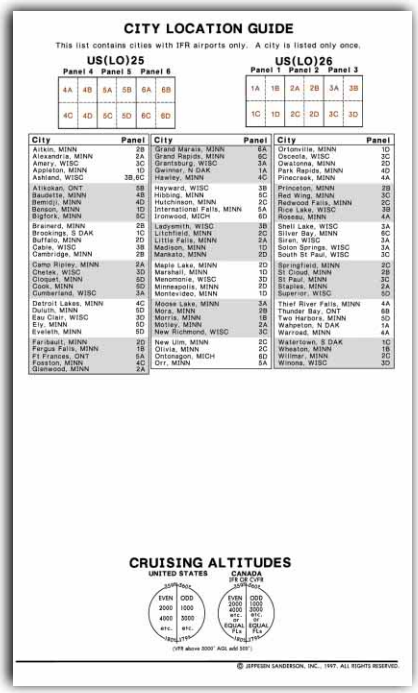
That is why there is a paragraph just below the chart layout diagram. In that paragraph, there is an explanation of the airspace and airway limits for the chart. In the United States, the explanation is quite simple, but in many areas, the enroute chart covers many countries which all seem to have different limits to their airways and airspace. So this paragraph can be very important.

Time Zones

You will note that the time zone boundaries are not located on the internal portion of each enroute chart, but are found on the front panel. The boundary between time zones is represented by a series of letter "T's." With the change to daylight savings time in the spring and back every fall, charts include the conversion to Coordinated Universal Time (UTC) for both daylight savings time and standard time within each time zone. This conversion factor can be found toward the top of the Index of Charts on the front panel of each enroute chart.

City Location Guide

Below the list of changes is a City Location Guide to help you find cities much easier. There is a miniature chart layout with the identifier of each panel on the face of the enroute chart as well as a list of all the cities on the chart which have an IFR airport. Some of the cities have more than one airport. As an example, Minneapolis, which has five IFR airports, can be found on panel 2D.


CITY LOCATION GUIDE

This list contains cities with IFR airports only. A city is listed only once.

US(LO)25 — Panel 4 | Panel 5 | Panel 6

4A	4B	5A	5B	6A	6B
4C	4D	5C	5D	6C	6D

US(LO)26 — Panel 1 | Panel 2 | Panel 3

1A	1B	2A	2B	3A	3B
1C	1D	2C	2D	3C	3D

City	Panel
Aitkin, MINN	2B
Alexandria, MINN	2A
Amery, WISC	3C
Appleton, MINN	1D
Ashland, WISC	3B,6C
Atikokan, ONT	5B
Baudette, MINN	4B
Bemidji, MINN	4D
Benson, MINN	1C
Bigfork, MINN	5C
Brainerd, MINN	2B
Brookings, S DAK	1C
Buffalo, MINN	2D
Cable, WISC	3B
Cambridge, MINN	2B
Camp Ripley, MINN	2A
Chetek, WISC	3D
Cloquet, MINN	5D
Cook, MINN	5D
Cumberland, WISC	3A
Detroit Lakes, MINN	4C
Duluth, MINN	5D
Eau Clair, WISC	3D
Ely, MINN	5D
Eveleth, MINN	5D
Faribault, MINN	2D
Fergus Falls, MINN	1B
Ft Frances, ONT	6A
Fosston, MINN	4C
Glenwood, MINN	2A
Grand Marais, MINN	6A
Grand Rapids, MINN	6C
Grantsburg, WISC	3A
Gwinner, N DAK	1A
Hawley, MINN	4C
Hayward, WISC	3B
Hibbing, MINN	5C
Hutchinson, MINN	2C
International Falls, MINN	6A
Ironwood, MICH	6D
Ladysmith, WISC	3B
Litchfield, MINN	2C
Little Falls, MINN	2A
Madison, MINN	1D
Mankato, MINN	2D
Maple Lake, MINN	2D
Marshall, MINN	1D
Menomonie, WISC	3D
Minneapolis, MINN	2D
Montevideo, MINN	1D
Moose Lake, MINN	3A
Mora, MINN	2B
Morris, MINN	1B
Motley, MINN	2A
New Richmond, WISC	3C
New Ulm, MINN	2C
Olivia, MINN	2C
Ontonagon, MICH	6D
Orr, MINN	5A
Ortonville, MINN	1D
Osceola, WISC	3C
Owatonna, MINN	2D
Park Rapids, MINN	4D
Pinecreek, MINN	4A
Princeton, MINN	2B
Red Wing, MINN	3C
Redwood Falls, MINN	2C
Rice Lake, WISC	3B
Roseau, MINN	6D
Shell Lake, WISC	3A
Silver Bay, MINN	6C
Siren, WISC	3A
Solon Springs, WISC	3A
South St Paul, WISC	3C
Springfield, MINN	2C
St Cloud, MINN	2B
St Paul, MINN	3C
Staples, MINN	2A
Superior, WISC	5D
Thief River Falls, MINN	4A
Thunder Bay, ONT	6B
Two Harbors, MINN	5D
Wahpeton, N DAK	1A
Warroad, MINN	4A
Watertown, S DAK	1C
Wheaton, MINN	1B
Willmar, MINN	2C
Winona, WISC	3D

CRUISING ALTITUDES

UNITED STATES — CANADA (FOR VFR FLIGHT BELOW 18,000')

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Cruising Altitudes

A reminder showing the appropriate cruising altitudes for VFR and IFR is included in schematic form at the bottom of the front panel. FAR 91.179 says that the east-west hemispheric rules apply *only* for operations in non-controlled airspace. Therefore, the odd or even thousand-foot altitudes do not apply within *controlled* airspace since ATC assigns the appropriate altitude for IFR operations. Remember, that degrees 360 through 179, and 180 through 359, apply to the magnetic *course* and not to the magnetic *heading*. This is true in the United States but varies occasionally for international operations.

Zig-dex

It sounds like a fancy marketing term (it is) — but it really works! The marketing term for the zigzag index located on the back panel of each low altitude enroute chart is "Zig-dex". To use the Zig-dex, simply place the thumb of either the right or left hand on the name at the top of the back panel and slide the thumb to the inside of the chart. This will open the chart to the desired area.

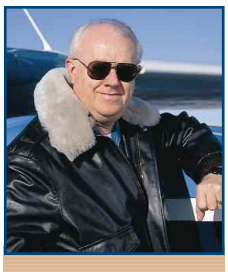
To further coordinate the Zig-dex names, refer to the geographical coverage in the first illustration in this article. The names that are shown are the same names that appear at the top of each Zig-dex panel. For example, on the front panel of US(LO)26, Watertown, Minneapolis, and Eau Claire are shown with dots. These are the same names at the top of the back panel.

Also, notice the panel numbers next to the city names at the top of the Zig-dex. These are used as reference numbers for the City Location Guide. For example, use your left thumb and press the panel labeled "2 Minneapolis" and slide your thumb inside and now you should be able to see Minneapolis in the lower right corner which is panel 2D. (If you actually have the US(LO)25/26, try it. It really works!!)

Airspace Restricted Areas

Normally, all of the information concerning special use airspace (SUA) areas are found on the face of the enroute chart near the respective area. In cases where chart congestion limits the amount of room, special use airspace and their limits are listed on the bottom of the front panel just above the cruising altitude symbol, or at the top of the back panel. Additionally, all part-time terminal airspace is included on the chart panel. For example, the Class E terminal airspace around Bemidji-Beltrami County Airport is effective from 0445 to 2345 local times on Mondays through Saturdays, and 0800 to 2345 on Sundays. During the other times, it is Class G airspace.

This article concludes the discussion of the enroute text pages and the front and back panel information on the enroute charts. In the next article, the inside of the chart will be explored.



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