

# JEPP'S BRIEFING



By JAMES E. TERPSTRA  
SR. CORPORATE VICE PRESIDENT, JEPPESEN

There is always at least one day every other week that you know the postman will stop at your mailbox. That familiar brown envelope from Denver or Frankfurt contains charts to fill some of your leisure hours. Each week, approximately 53,000 changes are made to Jeppesen charts. Despite numerous attempts to consolidate as many of these changes as possible, new and revised pages still keep flowing.

## Changes

STRAIGHT-IN LANDING RWY 27L		LOC (GS out)	
DA(H) 239' (228')		MDA(H) 660' (649')	
FULL	RAIL or ALS out	RAIL out	ALS out
RVR 24 or 1/2	RVR 40 or 1/4	RVR 24 or 1/2	RVR 40 or 1/4
		RVR 60 or 1/4	1 1/2
		1 1/2	2

CHANGES: Communications, new chart format. © JEPPESEN SANDERSON

PANS OPS 4		NA					
Gnd speed-Kts		90	110	120	130	140	160
Rate of descent on final (feet/min)		500	500	500	500	550	600
MAP at D1.5		CHANGES: See other side.					

When charts are issued, the items changed are indicated at the lower left of each approach, SID (Departure Procedure), STAR and Class B Airspace chart. The charts in the first illustration indicate some samples of reasons for approach chart changes. The changes for the top chart indicate that the communications have been revised. And, since many of the charts get revised every week, the chart formats are also revised to include the new Briefing Strip™ format.

Some of the other changes in the illustration don't seem quite so obvious. For example, why are some charts shipped with changes marked as "See Other Side?" When you see this change note, flip the approach chart to the reverse side and you will note that some

DA(H) 840' (810')		MDA(H) 840' (810')	
FULL	RAIL or ALS out	RAIL out	ALS out
RVR 18 or 1/2	RVR 24 or 1/2	RVR 40 or 1/4	RVR 24 or 1/2
		RVR 40 or 1/4	RVR 40 or 1/4
		RVR 40 or 1/4	RVR 60 or 1/4

CHANGES: Chart reindexed, new chart format. © JEPPESEN SANDERSON

# The Chart Clinic – Sixteenth in a Series

type of change was made which required the reissuance of that approach sheet. We formerly used the words "None" for the Changes note on the side that had no changes, but the complaints were numerous - the solution? "See Other Side."

Occasionally a chart has been in the field so long that it should be revised even though there are no aeronautical changes to make a revision necessary. This type of chart is marked with the notation "Reissue."

Since the charts are maintained in a specific sequence within each airport, it is sometimes necessary to relocate an approach chart from the back of one page to the front of a following page. For example, this change will occur when a localizer back course approach is added to the service and must be sequenced between the front course ILS and an existing VOR or NDB approach. As new charts are revised, Jeppesen is also sequencing the approach charts so they are sequenced by runway number within an approach procedure type. In these situations, the changes are noted as "Chart reindexed."

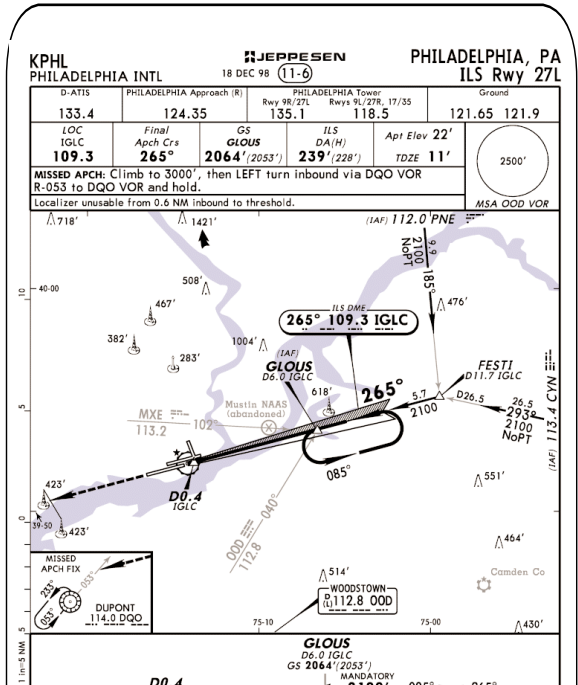
## Amendment Numbers

Amendment numbers are included on the charts as a record of the changes that have been made by the FAA. These numbers are located in the left margin at the bottom of each approach chart. Since each chart contains regulatory information, the standard instrument approach procedure (SIAP) is listed in the Federal Register. Normally, each time a procedure change is made to the approach chart, the approach goes through regulatory action and the amendment number is increased by one. However, an approach chart is often revised with no change in the amendment number. This is done when non-procedure information, such as a communication frequency, is revised.

The first chart in the illustration shows the amendment number as "0." This means that this is the original issue of the chart and no revisions have been made. The second chart includes the words "PANS OPS" which means that the country which issued this chart has stated that their instrument approach procedure complies with the ICAO PANS OPS criteria for the design of instrument approach procedures. The next chart says Amend 29B which means that this is the 29th revision of procedure information since the chart was first issued. The letter "B" means this is the second CCP NOTAM issued against the 29th amendment.

## Plan View

The plan view is the largest area on the approach chart and is located immediately



DD 4

below the heading or Briefing Strip. This section shows the approach procedure, including the feeder routes used to connect the approach with the enroute structure. The entire area within the plan view is drawn to scale. The scale is located in the left margin, next to the plan view, and normally has a conversion factor of one inch equals five nautical miles. Occasionally, though, the navigation information portrayed in the plan view covers such a large geographical area that it is necessary to use a scale of 7.5 nautical miles per inch. When this scale is used, it is shown on the left side of the plan view.

## Plan View Symbols

Most of the symbology used on enroute charts is identical to the symbology used on approach charts. This procedure allows you to transition from enroute charts to approach charts without learning a second set of symbols. The following discussion of approach chart symbology pertains to the Philadelphia, Pennsylvania ILS Rwy 27L approach.

The localizer front course symbol is displayed as a tapered arrow, pointing to the airport. A series of light, parallel diagonal lines indicate the right side of the localizer when proceeding inbound. The shading was originally created to match the blue and yellow sectors displayed on the early generation course deviation indicators. The shaded side of the localizer symbol represented the blue sector.

The localizer back course is included on the opposite end of the runway only when it is used for a missed approach or part of a transition. It is also included on back course approaches.

The inbound magnetic course of the localizer is provided in bold numbers, while the outbound course is shown adjacent to the holding pattern outbound track, or next to the procedure turn when it is used for the course reversal. For example, the inbound course at

Philadelphia is 265 degrees and the out-bound course is 085 degrees.

The frequency of the localizer may be found in two places on the chart. One location is in the Briefing Strip. The letters "LOC" appear in the Briefing Strip, followed by the localizer identifier and frequency. This frequency is also included within the elongated oval on the plan view. The oval includes the localizer inbound course, the localizer frequency, and the identifier with letters and Morse code. At Philadelphia, the letters "ILS DME" are at the top of the frequency box to indicate that the facility includes the localizer, glide slope, and a frequency-paired DME.

Several other navigation aids which are used for the approach are normally also included in the plan view. The Philadelphia ILS approach is unusual in that it does not have a middle marker, outer marker, or compass locator. A number of years ago, the FAA changed the policy so that an outage of the MM did not cause the minimums to be raised. Consequently, many middle markers disappeared since they no longer provided lower minimums. A locator outer marker (LOM) is usually at the non-precision FAF, but at Philadelphia, the FAF can be identified by DME or cross radials from the MXE and OOD VORs.

The PNE VOR toward the top of the plan view is an initial approach fix (IAF) and is used to form the initial approach segment from the enroute structure to the FESTI intersection. The PNE VOR is off the chart to the north so the frequency, identifier, and Morse code are shown for two reasons. First, it is used to identify the beginning of the segment with the identifier to match with the identifier on the enroute chart navaid. Secondly, the PNE VOR is used to form the FESTI intersection.

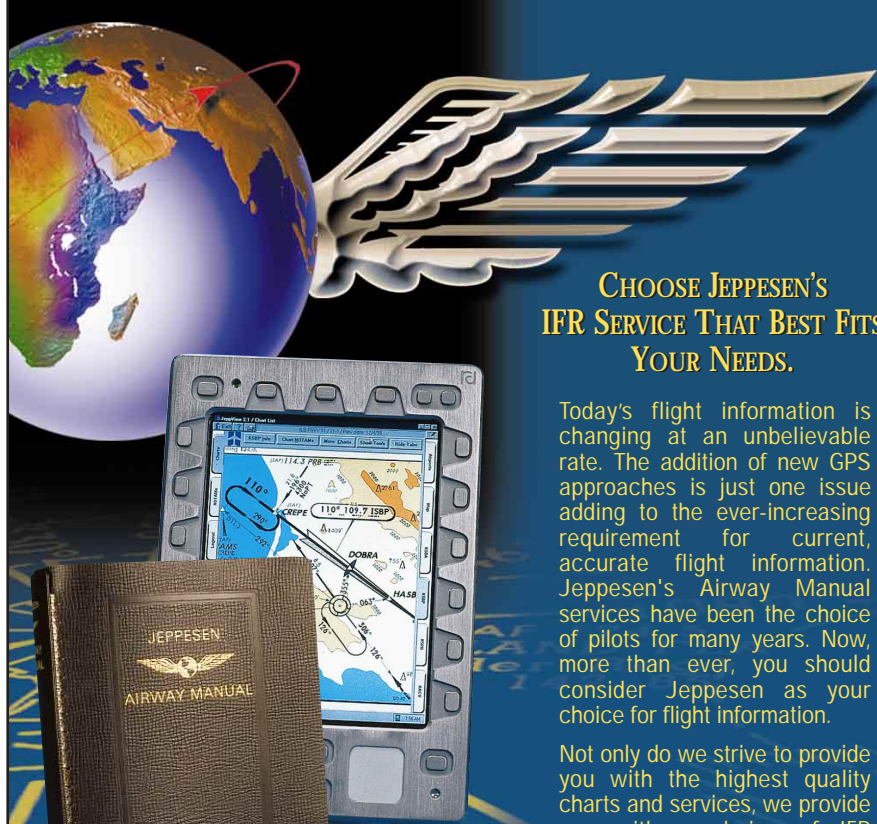
### Thickness of Lines

On the route from PNE, note there are two different thicknesses of the route. The first portion of the route is drawn with a heavy line and terminated with a large arrowhead. This means that the route can be flown as a transition. Additional information is provided for this flight track. The route also includes the distance (9.9), the altitude (2,100) and the magnetic course (185). At the end of the thick line, a light-weight line continues to FESTI and terminates with a small arrowhead. The light-weight line indicates that PNE is one of the formation facilities for FESTI. PNE would be used to form FESTI for the initial approach segment along the 293 radial from the CYN VOR on the east side of the chart.

The GLOUS intersection has a number of formations. The first is the localizer track. It can also be formed by the radials from OOD and MXE. The radials from OOD and MXE are shown in a light-weight line with a small arrowhead. The difference here is significant since the light line shows these are *not transitions* that can be flown from the OOD or MXE to the GLOUS intersection.

The heavy black line on the approach chart indicates the procedure track. When a procedure turn is authorized on an approach pro-

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cedure for the course reversal, the procedure turn will also be indicated with a heavy black line. At Philadelphia, the holding pattern is depicted at GLOUS intersection with a heavy black line. This means the holding pattern is part of the procedure, and is the course reversal instead of a procedure turn.

In the next article, we will continue our discussion of the plan view.



James E. Terpstra is senior corporate vice president, flight information technology at Jeppesen. His ratings include ATP, single and multi-engine, airplane and instrument flight instructor. His 6,000+ hours include 3,200 instructing. For comments, please Email: [JimTerps@jeppesen.com](mailto:JimTerps@jeppesen.com)