SOUTH AMERICA ENROUTE ENHANCEMENTS

GENERAL

Jeppesen is pleased to announce two enhancements to its South America Enroute charts. Both are the result of customer comments, suggestions, and direct feedback.

REFINEMENT OF GRID MINIMUM OFF ROUTE ALTITUDE VALUES (Grid MORAs)

A Grid MORA is an altitude derived by Jeppesen or provided by a State authority that provides clearance of terrain and man-made structures within a section of a chart or database defined by latitude and longitude lines. Grid MORAs derived by Jeppesen clear all terrain and man-made structures by 1000 feet in areas where the highest elevations are 5000 feet MSL or lower. Grid MORA clearance is 2000 feet in areas where the highest elevations are 5001 feet or higher. Some countries apply different criteria.

For decades the primary source used by Jeppesen as the basis for determining Grid MORA values has been a worldwide set of visual topographical charts. In addition, some government aviation authorities provide their own Grid MORAs or equivalent values. Where available, the government provided information has been used. In certain areas of South America the terrain information available on visual topographical charts was incomplete, unsurveyed, or estimated. Traditional topographical charts do not reflect newer sources of terrain data available in the form of digital terrain databases.

Based on reports from individual air crews, airlines, and inquiries from the International Air Transport Association (IATA) it became evident that many of the Grid MORAs in South America were exceptionally high. The situation complicated flight operations for airlines, commercial operators, and flight planners - especially in the area of RNAV route development, ETOPs flights, and contingency planning for emergency descents.

Jeppesen has been aware of the situation for some time. Until recently we were not satisfied that the resolution, integrity, and global coverage available from a variety of publicly available digital terrain databases met industry requirements for common use in the variety of aeronautical charts, flight information, and navigation products and services provided by Jeppesen worldwide.

We are pleased to announce that, after careful analysis, we have developed a digital terrain database of our own that meets our requirements. Starting in South America, it will become the basis for Grid MORAs shown on standard Airway Manual Enroute and Area Charts - as well as in our NavData electronic navigation database. A significant number of Grid MORA values have been refined. Government provided Grid MORA source will continue to be applied where available. If a government source value differs from a Jeppesen computed value the highest (most conservative) of the two will be applied.

NavData: Affected Grid MORA records for South America will be updated in the navigation database extract for Cycle 0712 effective 22 NOV 2007.

Enroute & Area Charts: Beginning with the revision of 30 NOV 2007, standard (†) Airway Manual Enroute, Area, and Plotting charts in the South America coverage will be revised to show refined Grid MORA values. Emphasis has been placed on modifying Grid MORA values in areas that were previously incomplete, unsurveyed, estimated, and/or known to be most problematic. This action is also intended to address values known to be exceptionally high and adjust them to more accurate and reasonable altitudes. Subsequent refinements may occur, later, as Grid MORAs in other parts of South America are reviewed and adjusted. It is planned to eventually extend this application to other geographic coverages.

(†) IMPORTANT NOTE: This action affects standard *South America Airway Manual Enroute, Area and Plotting charts* only. *Airlines who maintain tailored charts or tailored overlays in South America, or who supply their own source for tailored Grid MORAs, should contact their Jeppesen customer service representative concerning any special application of Grid MORAs to tailored charts or tailored databases for South America.*

HIGH ALTITUDE AIRWAY CENTERLINES ON LOW ALTITUDE ENROUTE CHARTS

In response to customer requests Jeppesen will begin charting the centerlines of overlying high altitude airways and routes on South America low altitude (LO) Enroute and Area charts. The reason behind this enhancement, requested and supported by a number of major international airlines, is to improve situational awareness for flight crews in case of rapid decompression or emergency descent into low altitude airspace.

In South America the lower limit (floor) of high altitude airspace varies and might be as high as FL200 to FL245, depending on the country or Upper Flight Information Region (UIR). Emergency descent to an oxygen-safe altitude requires an aircraft to quickly descend and transition into low altitude airspace and eventually join the low airway structure.

Operation Specifications (OpSpecs) for some airlines require that low altitude Enroute charts be readily available on the flight deck in case of an emergency descent, and that aircraft in these situations operate on established low altitude airways at or above the associated MEAs. This is important in South America where flight operations occur in remote areas where ATC Radar coverage may not be available, the availability of major airports might be limited, and high terrain may exist. These are all major considerations when preparing for or reacting to an emergency descent situation.

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While the main purpose for adding high altitude airway centerlines (‡) to South America low altitude Enroute and Area charts is to facilitate situational awareness and orientation during emergency procedures, this change will also allow for improved orientation during transition between high and low airway structures during normal flight operations.

Enroute & Area Charts: This enhancement will be applied to SA (LO) Enroute and Area charts on an as-revised basis, workload permitting, commencing after December 1, 2007.

(‡) IMPORTANT NOTE: Only the centerlines and designators of high altitude airways will be shown on the low altitude charts.