

AERONAUTICAL CHARTING FORUM
Charting Group
Meeting 15-01 – April 28 - 30, 2015

RECOMMENDATION DOCUMENT

FAA Control # ACF-CG RD 15-01-294

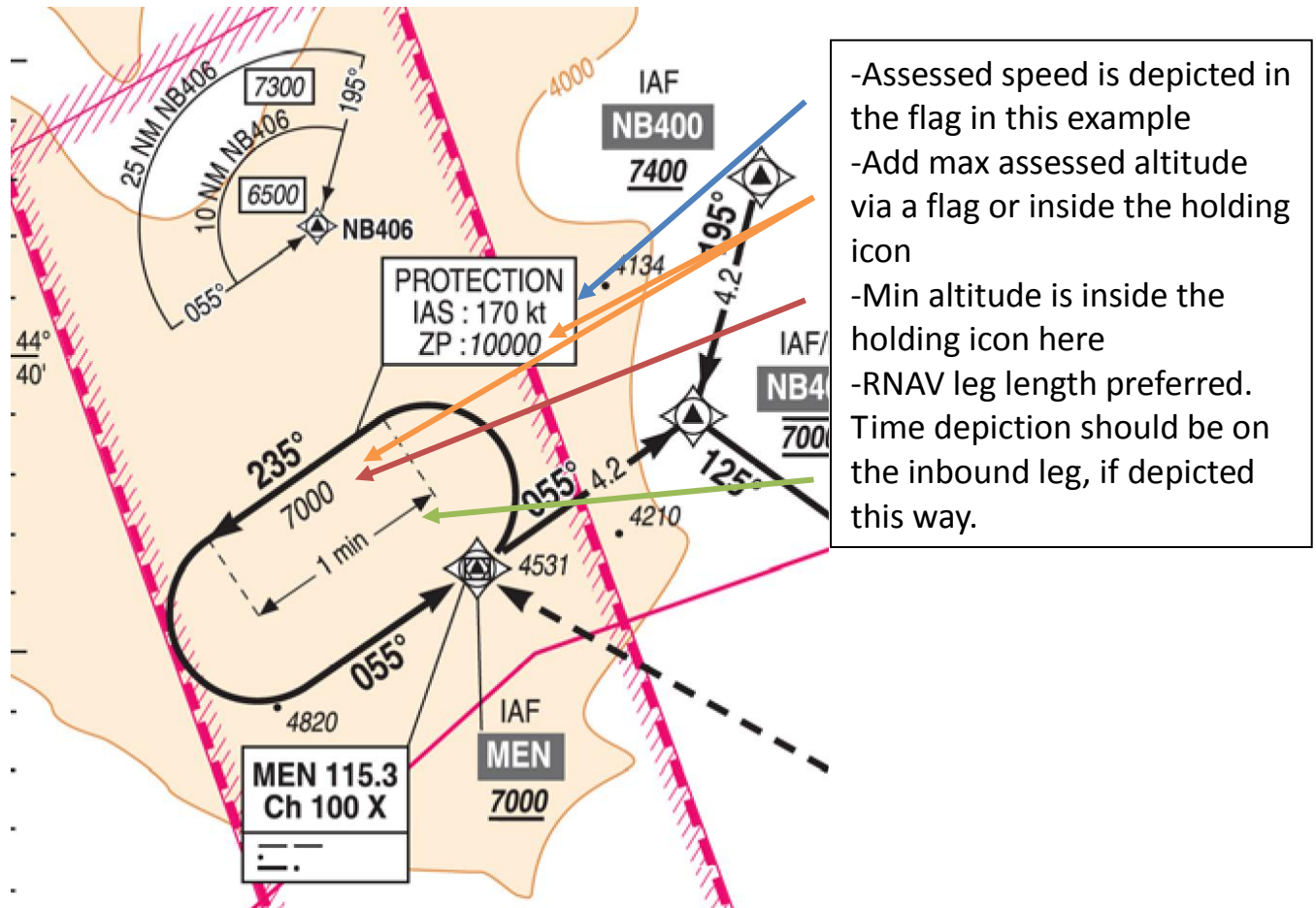
Subject: Charting Maximum Assessed Holding Altitude, and Associated Speed

Background/Discussion:

ACF discussions of holding containment issues, particularly with RNAV holding equipment, have brought to light related issues with holding. No statement about containment can be made without knowing if the aircraft is at or below the maximum assessed altitude for the holding pattern. In many cases, the holding pattern is only assessed to two thousand feet or so above the MVA or minimum holding altitude. When the aircraft is holding above the assessed altitude, the pattern size that was applied may be several sizes smaller than the area which would be applied at the actual holding altitude. The intention is not to preclude holding above the maximum assessed altitude if mitigations such as RADAR monitoring are applied, since in most cases the issue is aircraft to aircraft separation. The intent is to make both pilots and controllers aware of the maximum altitude at which containment can be assumed based on the standard holding assumptions. Other countries have already published an upper altitude for holding patterns, and the information is already documented on the 8260 forms. Publication could be in the form of an icon within the holding pattern depiction or as a “box” or “flag” outside the pattern as implemented by some countries.

Additionally, when the airspeed is based on the current altitude rather than the assessed altitude, the aircraft may be holding at airspeeds above those considered in the procedure design, due to a combination of increased IAS, TAS, and wind. The speed parameters assumed by some of the automated holding functionality are based on ICAO holding speeds, which are faster at some altitudes, also contributing to exceeding the holding area containment and possibly requiring manual correction by the crew if it is not charted and therefore coded. Even if the airspeed is not charted on all charts, the provision for charting must be considered in the chart design since non-standard holding speeds are currently charted. Future RNP holding, if implemented, would likely use a specified speed as one of the parameters to control the area size.

Figure 1 - ICAO Depiction of Maximum Assessed Holding Altitude, Holding Altitude and Speed

**Recommendations:**

Publish the maximum assessed holding altitude and the associated airspeed on all charts, to ensure crews and controllers are aware of the maximum altitude where containment is assured based on compliance with current holding guidance and holding assumptions.

Comments:

Submitted by: Steve Jackson
Organization: FAA/AFS-420
Phone: 405-954-6899
E-mail: Steve.E.Jackson@faa.gov
Date: April 2015

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Tom Schneider, AFS-420, briefed the new recommendation document on behalf of submitter, Steve Jackson. Tom stated that the proponent is recommending that maximum assessed holding altitudes and associated airspeeds be depicted on all charts.

Michael Stromberg, Air Wisconsin, commented that ATC should know the limits of a holding area and this information should not be on the charts.

Ted Thompson, Jeppesen, pointed out that adding this information to all holding patterns on all charts would have a significant impact on chart congestion.

Valerie Watson, AJV-553, stated that there is a mechanism in place to require speed restrictions charted on specifically designated locations on both Enroute and Terminal charts. Perhaps it would be preferable to show only these exceptions when deemed necessary, as is the current practice, rather than to show all. Gary Fiske, AJV-82, agreed that it should only be charted if it is outside the norm. He also expressed that depicting all of the holding pattern details on every chart may cause the pilots to unnecessarily question ATC. Tom commented that the FAA Order 7210.3 does require that holding pattern information be available to the controllers at an ATC facility.

Discussion then shifted to the criteria governing holding patterns and the charting of them. Valerie stated that FAA Order 8260.19 supports annotation of the procedure source document to both indicate what holding pattern(s) should be charted on a given procedure and that if the holding pattern requires a specific (non-standard) speed restriction. When the speed restriction is annotated on the 8260 procedure source document, it is charted.

There was a general consensus within the ACF audience that there is no need to chart the maximum assessed altitude and associated speed for holding patterns unless it is outside of standard and indicated for charting on the 8260 form. It was agreed to close the issue.

STATUS: CLOSED